R4105-29.40

Research Bulletin

U.S. Regional Outlook 1984-1985

Summary of a February 1984 Meeting of The Conference Board's Regional Economic Forum

The Conference Board

number 161

The Conference Board's Sixth Annual Regional Economic Forum met in February 1984, gathering nine experts from around the country. The Forum's deliberations are summarized in this report.

FORUM PARTICIPANTS

LYNN E. BROWNE, Vice President and Economist at the Federal Reserve Bank of Boston. Mrs. Browne conducts research on regional economic issues and industrial development. She received a B.A. from the University of Western Ontario and a Ph.D. from the Massachusetts Institute of Technology. Prior to joining the Federal Reserve Bank, she worked in the Department of Administration and Finance of the Commonwealth of Massachusetts.

NORMAN ROBERTSON, Senior Vice President and Chief Economist at Mellon Bank in Pittsburgh. He is a member of Mellon Bank's senior management and has responsibility for planning and managing the bank's economic research activities. Mr. Robertson is a member of the Economics Advisory Board at Columbia University's Graduate School of Business and a former member of the Economic Advisory Board of the United States Department of Commerce. A native of England, Mr. Robertson studied at the London School of Economics, and is a graduate of the University of London.

THOMAS J. SPITZNAS, Head of the Regional Economic Unit of Chemical Bank in New York. Mr. Spitznas previously was Head of the Business Conditions Unit, and also taught at Case-Western Reserve University, where he worked on a Ph.D. in economics. He is a graduate of Pennsylvania State University and a member of a number of professional organizations concerned with the New York regional economy.

KEMPER W. BAKER, JR., Economist for the Federal Reserve Bank of Richmond. Mr. Baker is responsible for research and analysis of current business, economic and financial conditions in the Fifth Federal Reserve District. He also directs the bank's Community Affairs and Economic Information Section, and collaborates with the Community Affairs officer on economic and community-development matters. He received a B.A. degree from Lynchburg College and an M.A. from the University of Virginia.

JOHN M. GODFREY, Vice President and Chief Economist of Barnett Banks of Florida. He is responsible for tracking national and Florida economic and financial trends, and for reporting these findings to management and the public. Mr. Godfrey also serves on the Asset-Liability Committee and produces Barnett's economic newsletter, *This Week*. His previous position was the Federal Reserve Bank of Atlanta as a Research Officer and Senior Financial Economist. Mr. Godfrey holds B.B.A. and Ph.D. degrees from the University of Georgia.

MARVIN DUNCAN, Vice President and Economist at the Federal Reserve Bank of Kansas City. Mr. Duncan holds B.S. and M.S. degrees from North Dakota State University, and a Ph.D. from Iowa State University. Prior to joining the bank, he was involved in farm and rural management, and served on the research staffs of North Dakota and Iowa State Universities. An economist with the Kansas City Federal Reserve Bank since 1975, he is active in banking education and writes and speaks widely on agricultural, banking and regional issues.

WILLIAM C. GRUBEN, Senior Economist at the Federal Reserve Bank of Dallas. Mr. Gruben is currently at work on a set of multivariate time series models of the Texas economy and is also researching the nature and extent of currency substitution in northern Mexico. He holds a Ph.D. in economics from the University of Texas at Austin. Formerly, Mr. Gruben was staff economist for InterFirst Corporation and has also served as Lecturer in the Department of International Management Studies at the University of Texas at Dallas.

TUCKER HART ADAMS, Chief Economist for United Banks of Colorado in Denver. Ms. Adams' fields of specialization are monetary theory and econometrics, and her responsibilities include monitoring and forecasting economic activity for Colorado and the nation. She holds a bachelor's degree from Wellesley College and M.S. and Ph.D. degrees in economics from the University of Colorado, and has taught at the University, at Colorado Women's College, and at the University of Denver.

JOSEPH A. WAHED, Vice President and Chief Economist for Wells Fargo Bank in San Francisco. Mr. Wahed has been involved in forecasting international, national and California economic trends for Wells Fargo Bank since 1969, and before that worked on California economic analysis for Bank of America. He holds an M.A. in economics from the University of Aberdeen in Scotland and a Diploma of Economics from the Sorbonne, and has done graduate study at the University of California.

LORA S. COLLINS, Director of Business Conditions Analysis at The Conference Board.

© 1984 The Conference Board, Inc.

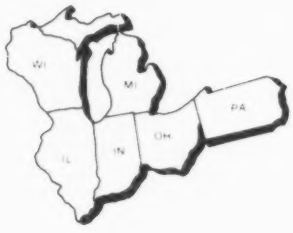
THE CONFERENCE BOARD, INC.
845 Third Avenue, New York, N.Y. 10022
THE CONFERENCE BOARD OF CANADA
25 McArthur Road, Ottawa, Ontario, K1L-6R3, Canada
THE CONFERENCE BOARD, INC.
Avenue Louise, 207-Bte 5, B-1050 Brussels, Belgium

HIGHLIGHTS

The pace of recovery in *New England* is similar to that in the country as a whole, but the composition is quite different—in good part because New England manufacturing jobs are disproportionately tied to business investment and to export markets, and recovery in these activities is lagging behind the overall upturn. However, provided that the national expansion continues, New England's job growth in the next two years is more likely to be limited by a tight labor supply than by weak demand.

NEW ENGLAND

INDUSTRIAL HEARTLAND



A solid upturn in the *Industrial Heartland* has been under way since late 1982, but employment is still nearly 1 million persons below the peak reached in 1979. The winds of fundamental structural change have buffeted the Heartland more than other regions. A sustained, broad-based national expansion is the key to a return to real economic health in the Heartland. Although the chances of achieving this are uncertain, the near-term prospects are favorable because national economic growth should be moderately strong in 1984, despite problems of international competitiveness and the federal deficit.

Economic recovery in the *Mid-Atlantic* region was slow to get started but began to pick up steam last Summer. This is fairly typical of the region, because its relatively low concentration of cyclically sensitive industries makes V-shaped recoveries rare. The strength of business capital spending was good for the region in 1983 and is an important positive factor in the outlook. On the assumption of solid growth in the national economy in 1984, the Mid-Atlantic region should easily top its 1983 performance. However, beyond 1984 the federal deficit poses a risk to prosperity both nationally and in the Mid-Atlantic.

MID-ATLANTIC

UPPER SOUTHEAST

In 1983, economic activity in the *Upper Southeast* rode the crest of the wave of residential construction and consumer spending that was driving the national recovery. The manufacture of building materials, textiles, furniture and appliances made major contributions to the region's recovery, and outweighed the negative effects of the deterioration in international trade. Prospects for 1984 are positive, although the staying power of the national recovery is a key question.

Economic activity in Florida and Georgia merely slowed during the national downturn, and has been expanding briskly in recovery. But the remainder of the *Lower Southeast*—Alabama, Mississippi and Tennessee—suffered more in the slump and has generally not fully recovered pre-slump levels of activity. The region will show above-average economic performance during the next two years, but the results will be significantly dominated by the strength in Georgia and Florida.

LOWER SOUTHEAST

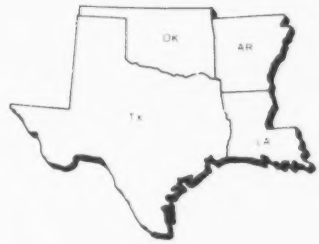
BEST AVAILABLE COPY

AMERICA'S BREADBASKET

The farm recovery in the *Breadbasket* that began last year is expected to become stronger and broader in 1984. Sharp cuts in output of major crops, combined with larger government payments to farmers, turned farm income around in 1983, although livestock producers and agriculture-related businesses did not share in the recovery. In 1984, income growth will be more evenly distributed across United States agriculture, and financial conditions may improve somewhat. The outlook beyond 1984 is restrained, however, as excess crop capacity and weak export demand are likely to limit income growth.

The *Southwest* was slow to move into the recession and has been slow to recover. A good part of the reason for the late start of recession in the region is that the decline in the energy industries lagged the overall United States decline, and the generally slow recovery of these industries has dampened the region's upturn. In Texas, moreover, the problems of the Mexican economy have had significant ramifications.

SOUTHWEST



MOUNTAIN STATES

The latest recession was the worst slump the *Mountain* region has experienced in almost 30 years, and it lasted in the region for some months longer than in the nation as a whole. Once recovery began, however, it outran the national pace. The recession accelerated the structural changes already occurring in the Mountains, particularly the cutbacks in mining. Manufacturing is growing more important, but smokestack industries are relatively absent; the service sector is also growing. The region should have a good year in 1984. Even with a stagnant energy industry, it should remain the fastest growing part of the country.

Business activity has improved in most of the states comprising the *Pacific* region, and in most of its industries. There is a widespread feeling that 1984 will be another year of expansion, and confidence has rebounded even in the lumbering areas, which were extremely hard hit by the recession. Although prospects for 1984 are favorable, troubles can be expected here and there in 1985 as inflationary pressures and the federal deficit push up interest rates. A rise in rates would quickly hurt the interest-sensitive sectors of the economy, particularly housing. The years beyond 1984 are, unfortunately, fraught with uncertainty.

PACIFIC

BEST AVAILABLE COPY

Near-Term Recovery but an Uncertain Future

Lora S. Collins
The Conference Board, Inc.

Lora S. Collins

WHEN the 1984-1985 Regional Economic Forum met, the national economy had been expanding for more than a year. An economic uptrend was well established even in laggard regions, and the unquestioned fact of broad-based recovery set the tone of the Forum meeting. In a word, the Forum members were encouraged. Of course, the recovery follows a prolonged and deep slump in the early years of the decade. Some segments of the economy are, consequently, still well below former levels of activity, even though they have been rebounding briskly. In such cases—typified by the Industrial Heartland—the fact of recovery may seem somewhat obscured, but it is a fact nonetheless. Even the agricultural sector, burdened by heavy debt, weak prices, and soft export markets, is on a positive trajectory in 1984.

The Regional Economic Forum participants look for a rise of at least 4 percent in real economic activity, and quite possibly more than 5 percent, in 1984. But they are very tentative in their view of prospects beyond this year. The Forum members want to believe that a smooth, sustainable rate of economic growth will be achieved, but they are doubtful. Their uncertainty was most frequently voiced as a concern that rising interest rates will cut off economic expansion. The Forum's discussion suggested that this might happen either because very rapid economic growth in 1984 causes the Federal Reserve to adopt an increasingly restrictive credit stance, or because the federal deficit's absorption of the national savings pool will push the price of credit up further. The latter interpretation was the more common one among the Forum members.

The slump of the early 1980's was very severe. By the business-cycle chronology of the National Bureau of Economic Research, there were two recessions separated by a mere year of recovery from mid-1980 to mid-1981. In fact, the three years 1980 through 1982 were marked by a prolonged and painful policy-induced deflation both in the United States and in other major nations. This made for an environment considerably harsher than in past slumps, and caused the economic distress to be unusually pervasive. The worry among Forum members is that the pain of the early 1980's may prove to have been in vain. Their concern is that the nation has not succeeded in adopting a policy stance that will support growth and restrain inflation in the years beyond 1984.

For the time being, however, the economic news is unquestionably positive. The pressures of the early 1980's brought about widespread adjustments in technology, in capital-labor ratios, and in cost structures. These changes are paying off now that overall growth has resumed. Thus, while clearly worried about the longer run, the Forum participants see few problems in the immediate future. Echoing a sentiment heard in the business community generally, the Forum was much more inclined to speak of "opportunities" than of the barriers and difficulties that were the common theme of discussion two and three years ago.

New England

Lynn E. Browne*
Federal Reserve Bank of Boston

Lynn E. Browne

The pace of recovery in New England is similar to that in the country as a whole, but the composition of the recovery in the region is quite different. As of January, nonagricultural wage and salary employment in New England was 3.3 percent above the level at the trough of the recession in November, 1982. U.S. nonagricultural employment increased 3.5 percent over the same period. Within the region, New Hampshire and Rhode Island have enjoyed the strongest recovery. Rhode Island suffered the sharpest employment losses of all the New England states in the 1981-1982 recession, and New Hampshire the mildest. Thus, in Rhode Island, the relatively strong recovery seems to reflect a cyclical rebound; in New Hampshire, it reflects the underlying strength of the state's economy.

Although total nonagricultural employment has increased at approximately the same rate in New England as in the nation, nonmanufacturing employment has grown more rapidly in the region and manufacturing more slowly. The difference between U.S. and New England growth rates is more striking for manufacturing, but there are three to four times as many jobs in the nonmanufacturing sector. Within nonmanufacturing, the employment recovery in wholesale and retail trade and in construction has been stronger in New England than elsewhere. Although population growth in New England is low, years of sluggish housing construction combined with a relaively strong overall economic performance have created a pent-up demand for housing. Residential construction activity, as measured by housing permits, has recovered about as vigorously in New England as in the nation. Housing prices are rising sharply in parts of the region.

In contrast to nonmanufacturing, the recovery in manufacturing has been markedly slower in New England than in other regions. Durable goods industries account for most of the difference. In the 1981-1982 recession, the decline in durable goods employment was less severe in the New England states than nationally, but in the first 14 months of recovery, durable goods employment increased less than 3 percent in the region compared to 8½ percent nationwide. Employment growth in New England has lagged that in the nation in almost all major durable goods categories. However, the really big difference is in transportation equipment. The auto industry, which is a much larger employer in the country as a whole than in New England, is recovering very strongly; the aircraft industry, which is much more important to New England, continues to languish. Moreover, through relationships with suppliers, the strength in autos has spilled over to some of the metals and machinery industries, contributing to the faster growth in these activities outside New England.

The slow recovery of New England's durable goods industries recalls the region's experience in the 1975-1976 upturn. Fourteen months into the earlier recovery, durable goods employment in New England was less than 1 percent above the recession trough. The following year, employment in the region picked up sharply and, despite the slow start, the growth in New England's durable goods industries from 1975 to 1983 far surpassed that in the country as a whole. The growth in total employment matched that nationally.

Most analysts expect the New England states to do at least as well in the current recovery. This optimism is based on the composition of the region's manufacturing sector. A disproportionate share of manufacturing in New England is tied to business investment spending, which typically lags in recoveries, rather than to consumer durables and residential construction, which typically lead. Investment spending has fared somewhat better in this recovery than is usually the case, but real spending in 1983 still averaged 4 percent below the level of 1982. In 1984, however, the Bureau of Economic Analysis estimates that business plans to increase real investment spending by 12 percent. Spending by manufacturing is projected to rise 16 percent. These increases will be particularly welcome to such New England industries as process and control instruments, computers for industrial applications, machine tools, and specialized industrial machinery.

Exports account for a larger fraction of shipments from New England than from the nation, and New England manufacturers can expect to benefit from rising export sales in 1984. Manufacturers of instruments, office equipment, and computers are especially dependent on foreign markets. These markets have been extremely depressed, but are expected to improve over the next two years.

Finally, New England receives about 12 percent of all prime defense contract awards; in contrast, the region accounts for only 6 percent of U.S. nonagricultural employment. The real value of prime defense contracts has been

*The views expressed are those of the author and do not necessarily represent those of the Federal Reserve Bank of Boston or the Federal Reserve System.

Table 1: Percent Changes in Nonfarm Wage and Salary Employment in Recessions and Recoveries—United States and New England

	Total	Manufacturing	Durable Goods	Nondurable Goods	Non-manufacturing
Recovery 11/70 - 1/72					
United States	3.0	1.3	2.4	-0.2	3.6
New England	0.1	-3.5	-5.0	-1.6	1.7
Recovery 3/75 - 5/76					
United States	3.6	4.2	3.1	5.8	3.4
New England	2.6	3.6	0.8	7.7	2.2
Recession 1/80 - 7/80					
United States	-1.2	-5.2	-6.8	-3.2	0.0
New England	-0.9	-2.9	-1.5	-5.2	-0.1
Recovery 7/80 - 7/81					
United States	2.0	2.9	3.7	1.7	1.8
New England	2.0	2.0	1.3	3.3	1.9
Recession 7/81 - 11/82					
United States	-3.0	-10.5	-13.5	-5.9	-0.8
New England	-2.2	-8.4	-9.2	-7.1	0.2
Connecticut	-1.6	-8.5	-10.9	-1.2	1.4
Maine	-2.8	-8.5	-9.5	-7.9	-0.7
Massachusetts	-2.2	-8.1	-8.5	-7.3	-0.3
New Hampshire	-1.3	-6.3	-5.4	-7.7	0.8
Rhode Island	-4.2	-12.6	-9.9	-14.6	-0.3
Vermont	-1.7	-7.1	-7.5	-6.0	0.1
Recovery 11/82 - 1/84					
United States	3.5	6.3	8.4	3.5	2.7
New England	3.3	2.5	2.9	1.8	3.6
Connecticut	2.7	0.6	0.0	2.3	3.5
Maine	2.2	1.6	4.3	0.4	2.4
Massachusetts	2.9	2.6	4.1	0.1	3.1
New Hampshire	8.0	8.0	8.4	7.2	8.1
Rhode Island	5.0	4.9	4.6	5.0	5.0
Vermont	2.0	1.3	1.2	1.4	2.3

rising since the mid-1970's. Increasing defense business undoubtedly played a role in New England's relatively strong performance in the 1980 and 1981-1982 recessions. However, there is often a considerable lag between the awarding of a defense contract and its effect on output and employment. Thus, the acceleration in defense procurement in the past several years has yet to be fully reflected in employment levels. The Department of Defense, however, is a very large and sometimes fickle customer. Contracts may be shifted from one manufacturer to another, creating difficulties for the losing contractor and its suppliers. Recently, General Electric won a one-year contract to produce engines for the F-16 fighter plane; Connecticut's United Technologies had previously been the sole supplier. The shift illustrates the uncertainties of the defense business even in a time of rapidly rising defense spending.

Apart from the possibility of an abbreviated national recovery, New England's employment growth over the next two years seems more likely to be limited by the supply of labor than by weak demand. Although the recovery in New England is only now beginning to pick up steam; unemployment rates in the region are about the same as before the recession. In January, the average unemploy-

Table 2: Unemployment Rate (percent)—United States and New England

	July 1981	Nov. 1982	Sept. 1983	Dec. 1983	Jan. 1984
United States	7.2	10.7	9.2	8.2	8.0
New England	6.3	7.8	6.5	5.8	5.9
Connecticut	6.0	7.5	5.4	4.7	4.7
Maine	7.1	7.8	8.2	8.0	8.1
Massachusetts	6.5	7.5	7.1	6.4	6.5
New Hampshire	5.0	7.6	4.0	4.0	4.9
Rhode Island	7.6	11.1	7.4	7.1	7.3
Vermont	5.4	6.9	5.4	5.5	6.4

ment rate in the region was 5.9 percent, compared to a U.S. rate of 8.0 percent. Rates in Connecticut and New Hampshire were below 5 percent; Connecticut has not seen unemployment rates so low since the 1960's.

In view of New England's low unemployment rates, it is not surprising that wages in the region are rising relative to those elsewhere. In 1983, average hourly earnings of manufacturing production workers rose 6 percent in New England and 4 percent in the country as a whole. Even so, hourly earnings in the region are only 91 percent of the national average.

To summarize, the pace of recovery in New England has been similar to that in the country as a whole. However, the composition of the recovery has been different, with manufacturing employment growing more slowly in the region. The recovery in New England manufacturing should accelerate in 1984 as business investment spending and export sales pick up, and as the effect of rising defense spending becomes more pervasive. Given that unemployment rates in New England are already close to pre-recession levels, stronger growth will result in tight labor markets and higher relative earnings in much of the region.

"The Industrial Heartland"

Norman Robertson
Mellon Bank

A solid upturn in the Heartland has been under way since November, 1982. Both the auto industry and, surprisingly, capital spending have been major contributors to the region's progress. Growth has been strongest in Michigan, where unemployment has dropped from 17.1 percent to 11.5 percent; unemployment is presently lowest in Pennsylvania at 8.3 percent.

The fact remains, however, that the most recent statistics place employment in the region nearly 1 million below the peak level reached in 1979. Other regions have generally regained most of the jobs lost in the recession and, in several cases, have expanded significantly beyond their former peak employment levels. The winds of fundamental structural change have clearly buffeted the Industrial Heartland more than other regions. But, it should be stressed as well that the relatively poor performance of the region reflects more than its smokestack-oriented industrial mix. The area has generally lost employment in recent years within those key manufacturing industries that form its industrial base. The reason: The region's plants are often the oldest and least efficient in the industry, with above-average production costs making them most vulnerable to cyclical episodes and foreign competition.

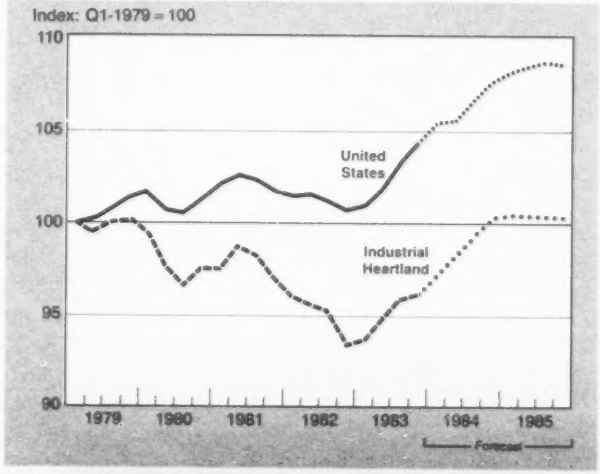
Table 3: Recovery in the Industrial Heartland as Measured by the Unemployment Rate

	Rate in January 1983 (percent)	*Reduction by January 1984 (percentage points)*
Michigan	11.5	5.6
Pennsylvania	8.3	5.2
Ohio	9.3	4.9
Illinois	9.9	3.6
Indiana	10.7	3.1
Wisconsin	9.9	2.1

Norman Robertson

With the Heartland's economy still far below pre-recession levels of activity, it is apparent that a sustained and broadly based national expansion lasting several years is the key ingredient needed for a return to economic health in the region. However, prospects for achieving this happy result are clouded by the major problems still facing the economy and policymakers—outsized federal budget deficits, high interest rates, and the overvalued United States dollar.

Chart 1:
Employment—Industrial Heartland and United States



BEST AVAILABLE COPY

Table 4: Key Indicators for the Industrial Heartland

	1980	1981	1982	1983	Forecast 1984	Forecast 1985
Employment (millions)	23.1	23.1	22.4	22.4	23.1	23.7
Unemployment (percent)	8.9	9.4	12.4	11.9	9.3	7.8
Retail Sales (percent change)	2.6	6.3	1.5	5.7	9.2	8.8
Housing Starts (thousand)	166.8	123.9	105.3	166.5	210.0	203.0

These problems could potentially affect the Industrial Heartland disproportionately. Econometric estimates suggest, for example, that the rise in the dollar's international value cost the region some 500,000 to 600,000 jobs during the recession—about half of the total decline. High interest rates have also had a relatively severe impact on interest-sensitive spending in the Heartland: Construction contract awards for nonresidential building in the region were 48 percent lower in 1983 than in 1978, compared to drops of 3 percent in the Census Bureau's South Atlantic region and 7 percent in New England. Similarly, in 1983 residential construction permits were off 57 percent in the Heartland from the 1978 level, while the Census Bureau's West South Central and South Atantic regions registered *gains* of 57 percent and 21 percent, respectively.

Turning to the outlook, the national expansion is expected to be moderately strong during the balance of 1984, despite concern over deteriorating international competitiveness and large federal budget deficits. In fact, our latest projections place this year's growth of real GNP in the 5.5 percent range, somewhat above the consensus of private forecasters. The strengthening in industrial markets implied by a rapid and broadening economic upturn is expected to boost employment in the Industrial Heartland by 4 percent between the fourth quarters of 1983 and 1984. This would bring the total number of jobs to 23.6 million by the end of 1984, close to the previous peak level of employment and representing a gain of more than 7 percent since the recovery first took hold. The forecast also shows the unemployment rate dropping to the 7.5-8.0 percent range late this year. For the moment, we expect the national expansion to slow in 1985, limiting the prospects for continued expansion of employment in the cyclically sensitive Heartland.

The recovery in Pennsylvania has outpaced that in the region as a whole. As is usually the case, the state's upturn lagged behind the national recovery: Its cyclical low occurred in March, 1983, about four months after the United States economy reached bottom. But the recovery in Pennsylvania began to gather momentum last Spring and quickly picked up speed. From March, 1983 through January, 1984, Pennsylvania employment grow 7.7 percent, which compared favorably with the 4.3 percent figure recorded for the United States and, in fact, places Pennsylvania second among the ten major states in terms of employment growth since the recession low.

A number of other statistics also reflect significant improvement in the Pennsylvania economy. By year end, industrial electric power sales were 12.3 percent above the first quarter level. Help-wanted advertising has increased 28.2 percent; the average workweek at Pennsylvania manufacturing plants has lengthened from 38 hours to more than 40 hours; and the rate of raw steel production jumped to nearly 15 million tons from a low of only 8.1 million tons per year. Meanwhile, retail sales of general merchandise, apparel and furniture stores have run about 13 percent above the prior year's levels.

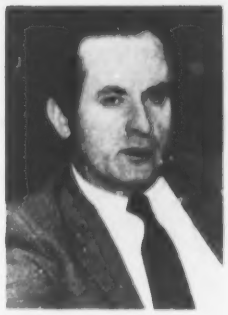
In Pennsylvania's case, the strong upturn clearly owes a considerable debt to the early and vigorous rebound in capital spending in 1983. True, the turnaround was initially concentrated in high-technology equipment and transportation machinery. But for the last three quarters, basic capital goods manufacturing—which traditionally has been the driving force for Pennsylvania's manufacturing base—has gained considerable momentum. Pennsylvania is experiencing its most buoyant upturn since the 1950's. Moreover, given the rebound in corporate cash flow brought about by the economic expansion and, in part, by the accelerated cost-recovery system enacted in 1981, the outlook for further capital spending growth is bright. Thus, Pennsylvania's basic manufacturing sector can look forward to continued gains in 1984.

Table 5: Recovery in Constant-dollar Business Equipment Spending in the Industrial Heartland

Equipment Type	Date of Cyclical Low	Annual Rate of Growth in Recovery (percent)
Transportation	Q III-1982	19.8
Heavy Industrial	Q IV-1982	18.3
High Tech	Q IV-1982	16.5
Construction	Q I-1983	47.1
Energy	Q I-1983	20.1

The Mid-Atlantic

Thomas J. Spitznas
Chemical Bank



Thomas J. Spitznas

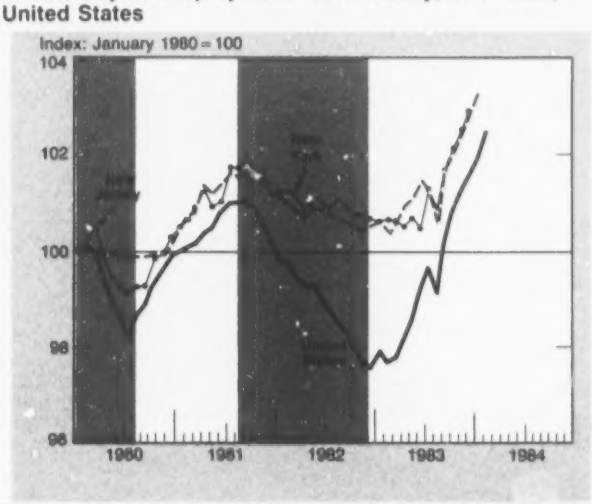
After a somewhat sluggish start, the economic recovery in the Mid-Atlantic region began to pick up steam last Summer and is now back on track. This is fairly typical behavior for New York and New Jersey, where the relative absence of cyclically sensitive industries make V-shaped recoveries a rarity. Despite the late start, by year-end 1983 private payroll employment in both New York and New Jersey had surpassed the level of January, 1980, the business cycle peak preceding the back-to-back recessions of the early 1980's (Chart 2).

The recent behavior of the region's unemployment rate tells a similar story. Over the first year of recovery, the national unemployment rate declined a surprising 2.3 percentage points, while the rate in the Mid-Atlantic region fell only 1½ points. However, at 7.3 percent in January, 1984, the Mid-Atlantic rate is still well below the national rate.

Inflation has been running above the national rate in the Mid-Atlantic region. Consumer prices last year increased 4.4 percent in the New York-Northeastern New Jersey area, compared with 3.8 percent nationally. During the early stages of a business recovery, it is not unusual for prices to rise faster in the New York City area than nationally. Beyond the first year of expansion, the New York inflation rate tends to come into line with the national rate.

Other regional indicators are more or less tracking the national pace. Mid-Atlantic retail sales, for example, increased around 10 percent during the first year of recovery, which is a shade below the national gain. Over the first three quarters of 1983, personal income in New Jersey grew somewhat faster than the national average, while income in New York grew somewhat more slowly.

Chart 2:
Private Payroll Employment—New Jersey, New York, United States



Note: New York data incorporate 1983 benchmark revisions. New Jersey data do no

The recovery last year was quite uneven within the region. The downstate portion of New York State (New York City and its suburbs) outperformed the upstate area, while the downstate suburbs—led by Long Island—grew faster than New York City. In New Jersey, the contrast is just as striking between rapidly growing areas such as Paterson-Clifton-Passaic and Atlantic City (where casino employment jumped 9½ percent last year), and slower-growing areas such as Hackensack and New Brunswick.

Two developments at the national level last year were especially favorable for the Mid-Atlantic economy. The first was the change from a consumer- and housing-led recovery to an expansion in which capital spending plays a relatively more important role. Beginning in the second quarter last year, real spending on capital equipment increased at nearly a 15 percent annual rate. During 1984, business spending on capital goods is likely to be the fastest-growing major economic sector. Another recent development that tends to support an optimistic outlook for capital spending has been the welcome slowing of the national economic expansion to a more sustainable rate. Had the rapid growth of last year's second and third quarters carried over to the fourth quarter, the chance would be much higher that interest rates would rise to a level that chokes off the revival in capital spending—and perhaps the expansion itself. The prospect of huge federal budget deficits gives the financial markets enough to worry about without the added concern of an overheating economy.

These developments are important for both New York and New Jersey because of the relative importance of capital equipment manufacturing in the region. This is especially true for upstate New York, where business equipment and industrial instrument manufacturing make up a relatively large portion of the economic base. The region also has a relatively large share of high-tech firms that will benefit from the strength in demand for capital equipment. New York, for example, has 8 percent of the nation's total nonagricultural jobs, but 11 percent of the nationwide employment in high-tech industries. Undoubtedly, the sharp pickup in the region's employment growth during the final quarter of 1983 was in good part a response to the strength of business equipment demand earlier in the year.

BEST AVAILABLE COPY

Given the strong likelihood of a solid, if unspectacular, growth of the national economy in 1984, the Mid-Atlantic economy should easily top last year's performance. With real GNP expected to increase around 5½ percent, a 4 percent gain in U.S. private payroll employment is not unreasonable for 1984. This is a somewhat lower employment forecast than 5½ percent real growth would have implied during the business cycle expansions of the 1970's. However, as businesses continue to substitute capital for labor and as more corporations adopt "lean and mean" personnel policies, employment growth is likely to be held down during 1984. These same forces will dampen private employment growth in the Mid-Atlantic region, especially in New York City and suburbs like Westchester County, where corporate headquarters make up a relatively large share of the employment base. Employment in the Mid-Atlantic region should grow about one percentage point slower than the national rate—a performance roughly comparable with that during the expansions of the 1950's and 1960's and superior to the regions's relative performance during the 1970's (Chart 3).

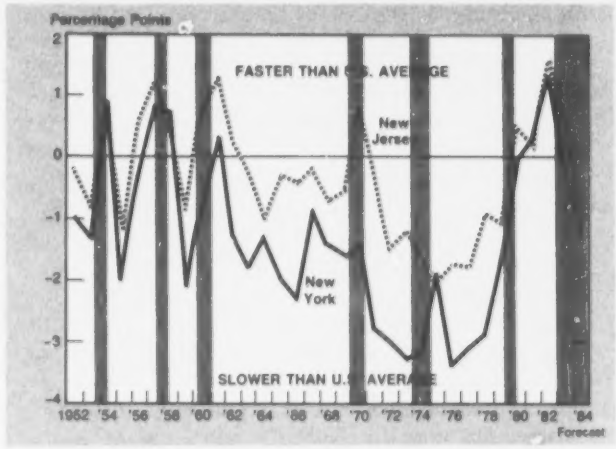
The major threat to continued national expansion in 1984 is a swelling of the projected federal deficit beyond the already-high $180 billion anticipated for the fiscal year beginning October 1, 1984. If the financial community concludes that this is happening, interest rates could rise to the point where economic growth becomes difficult, if not impossible. This would, after a time, have an adverse effect on the region. The probability of a $180 billion deficit

Table 6: Percent Change in Private Payroll Employment

	1983[a]	*1984 Forecast*
United States	0.6	4.1
Mid-Atlantic	0.7	3.0
New York	0.5	2.8
New Jersey	1.2	3.3

[a]It is assumed that preliminary 1983 estimates for New Jersey will be revised up by 0.8 percent.

Chart 3:
Growth Rate of Private Payroll Employment—Deviation of New York and New Jersey from United States Average



"crowding out" a significant number of private borrowers in 1984 is not very high. However, beyond 1984, the risks of crowding out and escalating interest rates become a more likely threat to continued prosperity both nationally and in the Mid-Atlantic region.

The major long-run problem for the region is the continued erosion of manufacturing, especially in New York City where this problem is contributing to a disturbing trend toward a society of "haves" and "have nots." Other problems that could become counterproductive for the region include a serious housing shortage in New York City and certain of its suburbs; a looming battle between upstate and downstate New York over cheap hydro power; and some name-calling between New York City and New Jersey over a commercial development project in New Jersey that New York views as a threat to its job base. As serious as some of these problems are, they appear to be more than offset by a renewed commitment on the part of the private sector to invest in the region and to work with the public sector to improve its general economic and fiscal well-being.

BEST AVAILABLE COPY

The Upper Southeast

Kemper W. Baker, Jr.*
Federal Reserve Bank of Richmond

Kemper W. Baker, Jr.

For the Upper Southeast, 1983 was a year that began with subtle but undeniable stirrings of economic recovery. Early indications of a turnaround were found in the textile industry and in residential construction, while the arrest of precipitous declines in the furniture and building materials sectors offered further evidence. Expectations were taking account of these developments, but there was little suspicion that 1983 would bring the broad, robust recovery that was then gathering momentum.

As the year unfolded, the unemployment rate in the region, after spurting to nearly 10.8 percent in January, faded quickly, reaching 7.9 percent by November. Business activity in the region was able to ride the crest of the wave of home building and consumer spending that drove the recovery throughout its first year. The manufacture of building materials, non-apparel textiles, furniture and fixtures, and appliances all made major contributions to recovery in the Upper Southeast, as did the region's own residential construction sector. By year end, shipments, employment, capacity utilization, and profits in those sectors, concentrated in Virginia and the Carolinas, were much improved, and the outlook was continuing to firm. Results were less striking in other areas, although Maryland was able to make significant employment gains on the strength of trade and services. Delaware's gains were concentrated primarily in the construction and services sectors. The District of Columbia made little progress, as gains on the government side barely offset losses in trade and services. Although losing manufacturing employment as well as some of its share of U.S. coal output, West Virginia added jobs throughout the year; nonetheless, November, 1983, levels were still below those of November, 1982.

Prospects for the current year appear positive, on balance. Of course, the staying power of the U.S. recovery is a principal question in nearly everyone's mind. But if the recovery continues to follow a nearly normal path, the outlook for the Upper Southeast is certainly positive and, perhaps, spectacular. That distinction will hinge, in part, on developments in the foreign trade sector. To a large extent, the region's 1983 progress was made in spite of the marked deterioration in the trade accounts. For instance, U.S. imports of textile products exceeded exports by $10.6 billion, up a third from the previous year. Similar, though less dramatic, effects were felt in the primary metals, furniture and coal industries, each of which is a major producer and employer in the region. A cyclical improvement in exports would provide a significant stimulus to those sectors and the region in 1984 and beyond.

*The views expressed are, unless otherwise indicated, those of the author; none is intended, nor should be construed, as representing the view of the Federal Reserve Bank of Richmond or of the Federal Reserve System.

Three other factors provide the principal bases for a positive regional outlook. While these factors are not exclusively regional, they are important in the Upper Southeast. First is the revival of the capital and industrial goods sectors, a revival that has been developing for several months now. As this recovery gathers momentum, it will generate activity in the machinery, electrical equipment, construction materials, metals and chemicals industries that provide significant income and employment in Delaware, Kentucky, Maryland and West Virginia.

Second is the prevalence of modernization and efficiency-enhancing measures taken by some manufacturing concerns in recent years. This second factor will underpin the recovery in several industries by reducing break-even sales levels; but also, and probably more importantly, it will reduce unit costs and make some firms more competitive with foreign producers. The textile industry is one example of this. Improved production techniques, as well as better inventory control and handling procedures, will enable some firms to raise and stabilize their production and sales. Other industries in which similar improvements have been made include apparel, major home appliances, and paper. Of course, the recovery's first-round effects on employment may well be mitigated by these developments, but positive results are likely to accrue in the longer term.

Last among the three factors is the progressive restructuring of the economic base of the region. The substantial concentrations of industrial activity that have characterized several states of the region are breaking down. The greater diversity of the economic base has already raised and stabilized income and employment levels in the region, but the full effects have yet to be felt. In a sense, the economies themselves are being modernized just as several of their constituent older industries have been. Significant contributions to this phenomenon have come from the influx of producers in such industries as machinery and electrical and electronic equipment, as well as the rapid growth of the so-called information industries, including research and consulting.

We may expect then that the mature recovery hoped for in 1984 and beyond will further boost economic activity

in the region, just as its callow phase did in 1983. It seems likely, also, that the gains associated with the maturing recovery will build on those already achieved. The region's textile, building materials, and appliance groups should track national construction and consumer durables activity as it holds or furthers the advances of 1983.

Despite the widely held and very reasonable expectation of further declines in U.S. net exports in 1984, there is hope for improvement in world demand for the products of the Upper Southeast. This hope hangs on a prospective rise in world trade activity. It seems at least likely that the world's industrial economies will grow in coming months. Such growth would offer the prospect of world trade finally rising after several years of stagnation, and would provide some stimulus to the large transportation sector, rails and ports, that funnels goods into and out of the United States through the Upper Southeast.

Unfortunately, however, there is no economic counterpart to the ideal weather forecast of fair, sunny skies, balmy temperatures, and no chance of precipitation. There is always a thunderstorm or worse somewhere in our economic radar area. But in the Upper Southeast, the structure of the economic base, as well as the recent revamping of portions of its industry, should make 1984 a year of solid gains in employment and income, all within the context of continued national growth and the gathering strength of recovery in the other industrialized nations. The risk to the region of national or international stagnation or decline must, of course, be recognized, but that risk appears minimal for 1984.

The Lower Southeast

John M. Godfrey
Barnett Banks of Florida, Inc.

John M. Godfrey

The "Sun Belt" states will continue to dominate economic growth relative to the "Frost Belt" states. The importance of energy development, relatively low wages, energy costs, tax rates and above-average population growth will provide strong incentives for economic expansion in the "Sun Belt" states. In addition, environmental conditions and lower levels of urbanization will insure that "Sun Belt" states are relatively more attractive in sustaining development. Also, many of the manufacturing firms located in the South are in rapidly growing industries and expansion by these firms is likely to take place close to their present facilities. While the strongest growth will continue to be in the South, this growth will be at lower rates than in the past.

The South, however, is a diverse region. Just as the prolonged national recession exposed the five states comprising the Lower Southeast to different degrees of recession, the rising tide of recovery has not restored them evenly. Florida and Georgia merely slowed during the national downturn and have experienced brisk expansions during the national recovery. These states are moving forward at record rates. Alabama, Mississippi and Tennessee, in contrast, suffered more during the 1980 and 1981-1982 recessions and generally have not fully recovered. These different recovery patterns suggest that not all "Sun Belt" states are equally well positioned to expand in the future. The differences reflect basic variations in economic structure that affect the states' cyclical and long-term growth prospects.

The lower concentration and better industry mix of growing manufacturing firms explains much of the better cyclical performance of Florida and Georgia. Alabama, Mississippi and Tennessee all have higher concentrations of manufacturing employment than the nation at large, and much of their manufacturing is in slower-growing industries. Some industries are declining, while the substitution of capital for labor dims employment prospects in some sectors even as output rises.

Higher secular growth in Florida and Georgia is a result of substantially above-average population growth, and supports greater service-sector employment. Alabama, Mississippi and Tennessee have population growth only slightly above the national pace. Economic performance in the region will be better than the national average during the next two years, but the prospects are badly skewed in that they are heavily dominated by the combined strength of Georgia and Florida.

Florida has been growing vigorously for nearly two years and helped set the stage for the national recovery. Fueled by strong gains in residential and commercial construction and related activities, tourism, and services and trade, the Sunshine State posted one of the largest and most rapid employment gains of any state in the nation. The opening of Disney's Epcot in late 1982 helped fuel strong gains in tourism, and investment in lodging remains strong. Activity

has failed to revive only in the areas of phosphate mining in central Florida and international activities in south Florida, largely reflecting the strong U.S. dollar and weak Latin American economies. Unemployment has fallen to 7 percent and remains roughly one percentage point below the national average. Prospects appear bright for continued rapid growth in 1984 and 1985. Immigration is expected to boost population by 2½ to 3 percent, or 250,000 to 300,000 per year. This will lead to further strength in housing and additional commercial and retail construction. Although manufacturing is relatively small, growth is rapid in the state's high-tech industries; much of this is defense related. Also, there were sizable rebounds last year in the lumber, building materials, and manufactured housing industries. A large portion of growth in services jobs is in health care, related to the state's large retiree population. Tourism, especially in central Florida, will continue to benefit from improving economic conditions in surrounding states and the eastern United States. However, the harsh winter cut citrus output for the third time in four years.

Georgia has experienced above-average growth during the upturn. Atlanta's large, diversified and relatively noncyclical base helped support the state. Job growth was nearly 3 percent last year and, with an abatement of widespread layoffs, was sufficient to produce a 6.6 percent unemployment rate at year end. The housing recovery in the state and throughout the country has lifted direct construction jobs, as well as employment in lumber and other building materials manufacturing and such home furnishings as carpets. The strongest job growth occurred outside of Georgia's capital city. Growth in construction-related manufacturing jobs will slow in 1984. Rising consumer spending on clothing should increase the employment in textiles and apparel, however, and Atlanta's position as a regional crossroads will continue to provide steady growth to the state.

Alabama, Mississippi and Tennessee are recording below-average growth that has left them short of their previous highwater marks. Employment will not return to peak levels until the end of 1984, and even then Mississippi will not be fully recovered.

The recovery in *Alabama* continues to lag the stronger national expansion. However, recent employment data indicate that the state's economy definitely has turned around as demand has risen for Alabama's durable manufactures. While the unemployment rate ended the year at 12.3 percent, it was well below the year-earlier 15.5 percent. The outlook is for a modest upturn during 1984 and slow growth in 1985. The expansion in Alabama's manufacturing employment is limited because of the concentration of slow-growth industries. Coming off a low base, employment growth is expected to reach 3.0 percent by the end of 1984, and then slow to 1.5 percent by the end of 1985. The state's unemployment rate will move down slightly as manufacturing benefits from continued strong automobile demand. However, the rate will remain relatively high as coal and oil continue to be weak spots.

Recent employment gains indicate that a recovery is in place in *Mississippi*. As in Alabama, the expansion in Mississippi is lagging behind the U.S. recovery. However, improvement has been made as the state's unemployment rate fell to 10.0 percent in December, down from 11.8 percent a year earlier. Job growth approached a 1 percent annual rate by year end. During 1984, the economic recovery in Mississippi will be slower than the national average: Personal income growth should reach 8.4 percent, compared to 9.0 percent for the nation. However, economic growth in 1985 should parallel the nation's, as personal income growth rises to 9.1 percent in Mississippi and 9.2 percent in the United States.

Tennessee's economic recovery began earlier than Alabama's and Mississippi's but the recovery is still weaker than the national average. The 1982 World's Fair provided a boost but that lapsed in 1983, when the state was also affected by the reorganization of a number of financial institutions. The state's unemployment rate moved down from 12.7 percent in December, 1982, to 10.3 percent a year later. Payroll employment began expanding in early 1983, and job growth was at about a 2-percent rate toward the end of the year. In manufacturing, nondurables predominate and have better prospects over the near term. The outlook is for nearly average economic growth in Tennessee during the next two years. Employment growth in the 2 to 3 percent range will help generate income growth to 8 to 9 percent. Even though Tennessee has posted a relatively strong rebound, the gains could weaken as the recovery matures.

"America's Breadbasket"

Marvin Duncan*
Federal Reserve Bank of Kansas City

The outlook for U.S. agriculture is fairly bright. The farm recovery that began last year is expected to become stronger and more broadly based in 1984. Sharp reductions in output of major crops, resulting from acreage cutbacks and drought, combined with historically large government payments to farmers, turned farm income around in 1983. However, livestock producers and agribusinesses did not share in the recovery. For 1984, income growth will be more uniformly distributed across U.S. agriculture. But even as prospects for this year have brightened, some clouds of uncertainty are appearing on the horizon for the years beyond 1984.

Adding substance to the improved prospects for farm income, prices received by farmers began rising last Fall. In January, they were 12 percent higher than a year earlier. This compared with an increase of less than 4 percent in the index of prices paid by farmers. The most dramatic increases have been in crop prices. The index of crop prices was up one-fifth in January over a year earlier. Prices were up 52 percent for vegetables, 36 percent for oil-bearing crops, and 30 percent for feed grains. These changes account for most of the increase in the crop price index. Although prices of major field crops may soften soon, vegetable and fruit prices could increase further. The rise in the prices of livestock products has been slower—a gain of less than 6 percent since early 1983, with most of that coming in early 1984. Unlike crop prices, however, livestock prices will probably increase through much of 1984.

The changes in farm commodity prices reflect the current supply-demand relationships for major crops. A combination of acreage reductions brought on by the federal Payment-in-Kind (PIK) program and drought-reduced yields sharply lowered 1983 production levels for feed grains, soybeans and cotton. Wheat production was not greatly affected by either PIK or the drought.

Stocks of both feed grains and soybeans have been sharply reduced. Both will be at near-minimum carryover levels by the end of the 1983-1984 marketing year, leaving the price outlook for both crops sensitive to planted acreage and growing conditions in 1984. Production problems could send prices soaring. Alternatively, very large production would cause prices to drop substantially. Cotton producers will probably see a similar, though less dramatic, swing in supply. Wheat producers face a rather bleak outlook, with a larger prospective crop adding to already burdensome stocks.

*The views expressed are solely those of the author and do not necessarily represent those of the Federal Reserved Bank of Kansas City or of the Federal Reserved System.

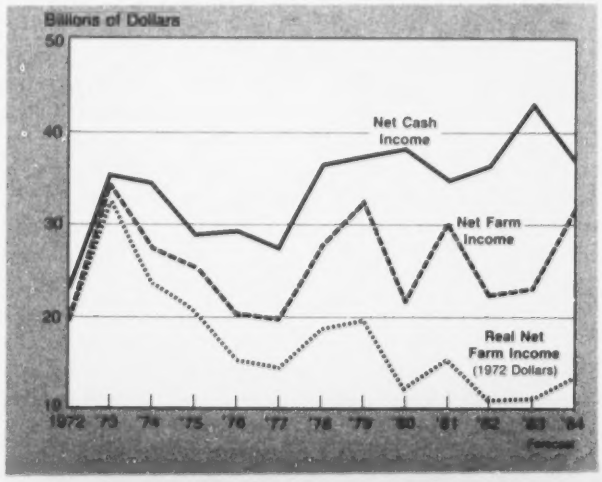
Marvin Duncan

On balance, a return to large planted acres for major crops in 1984 is almost a certainty. With a far less generous government acreage-reduction program meaning less participation by farmers, harvested acreage of major crops could approach the high levels of 1982. Thus, with normal production weather, the stage is set for a substantial buildup in supplies of all major crops and additional downward pressure on prices by the end of Summer.

The outlook for livestock is much brighter than for crops. Cattle numbers at the beginning of the year were about 1 percent less than a year earlier, and further declines are expected over the next year or two. Hog producers are also planning production cutbacks. The inventory of breeding hogs has been reduced 1 percent, and additional reductions are likely. Only about half as many dairy cows as earlier expected will be slaughtered under the government's program to reduce milk production. All this means that meat production this year is expected to be about 2 percent less than the record production last year.

Continued expansion of the U.S. economy will add to personal income and total employment this year, pointing to an increase in demand for meat. That, with the reduced breeding herds of cattle and hogs, points to higher livestock prices and profitable livestock production for the next two to three years.

Chart 4:
Farm Income



BEST AVAILABLE COPY

Growth in the export market—a market of major importance to farmers—will be disappointing again this year. Although the value of agricultural exports may climb to nearly $38 billion in fiscal 1984, tonnage may be down for the fourth year in a row. Growth in farm exports has been limited by weakness in the economies of our trading partners and increased competition in world markets. The dollar's value—up over 50 percent on a trade-weighted basis since 1979—is proving a major problem for exporters.

Nonetheless, farm income is expected to improve in 1984 because of higher average prices for crops, large crop production, higher livestock prices, and last year's PIK grain marketed in 1984. Higher cash receipts, especially from crops, will more than offset somewhat lower government payments and higher farm production costs. Net farm income is expected to increase from $23 billion in 1983 to a range of $29 to $34 billion in 1984. Inventory adjustment will add substantially to net farm income. Coupled with higher cash production expenses, that means net cash income may fall $5 to $7 billion from the record $43 billion earned in 1983 to a range of $36 to $39 billion.

The new year began with farm credit conditions mixed. In the Tenth Federal Reserve District, for example, loan demand was the highest in more than two years and available funds were plentiful at agricultural banks. Nearly half the agricultural banks in the district were looking for new farm loan accounts, but the emphasis was on loan quality. The rate of loan repayments had declined, and requests for renewals or extensions had increased. Interest rates on farm loans, stable throughout 1983, were at 14 percent for operating loans as the new year began.

As a result of higher farm income, financial conditions of U.S. farms may improve somewhat in 1984. Farm land values appear to have stabilized and could strenghten somewhat after three years of decline. Assets other than real estate may increase in value, and the farm sector's debt-asset ratio could improve somewhat. But while most farmers will probably solidify their financial conditions, a small and visible proportion of farmers will have more financial problems. As a result, exits from farming because of financial stress will probably continue higher than normal in 1984.

Agribusiness firms can look for a better year in 1984. Three years of recession, followed by a year of PIK that brought unexpected sharp cutbacks in agribusiness sales have strained many firms. Tenth District bankers reported that 13 percent of rural nonfarm businesses in their trade areas were having severe financial problems when 1983 ended. Stronger sales at more profitable prices will bring welcome relief this year.

Despite higher farm and agribusiness income this year, the outlook for agriculture beyond 1984 is restrained. Excess crop production capacity and expected weak growth in export demand will likely limit growth in net farm income for a number of years beyond 1984. Such an environment could lead to further declines in real farm-asset values and continued financial problems for farmers and rural nonfarm businesses.

The Southwest

William C. Gruben*
Federal Reserve Bank of Dallas

William C. Gruben

The Southwest was slow in moving into the recession that began in mid-1981 and has been slow in recovering from it. While the national unemployment rate peaked in December, 1982, Texas' did not reach its high until March, 1983, while Oklahoma and Louisiana topped out in May, 1983. Arkansas' (seasonally adjusted) unemployment rate was never higher at any time during the 1980's than it was in October, 1983.

The Southwest entered its recession late, in part, because downturns in oil and gas drilling, oilfield equipment manufacture, and a number of other energy-related activities lagged the overall United States economic decline. During 1983, falling drilling costs and stabilizing oil prices helped to stimulate a drilling recovery, while declining interest rates brought on rapid increases in home construction in all of the southwestern states.

In Texas, the nation's number-two state in terms of prime defense contract awards, the doubling of prime defense contracts outstanding between the end of fiscal 1980 and the end of fiscal 1983 both dampened the state's recession and contributed to recovery. However, the repercussions of the Mexican peso devaluation of August, 1982, and the continuation of economic problems in Mexico in 1983 contributed to the maintenance of significant economic weakness along Texas' long border with Mex-

*The views expressed are those of the author and do not necessarily represent those of the Federal Reserve Bank of Dallas or of the Federal Reserve System.

ico and in Houston, where Mexicans have traditionally purchased oilfield equipment and retail goods. The United States recovery in the fourth quarter of 1982 significantly aided southwestern economic improvement. The Texas Industrial Production Index turned around in December, 1982, in large part because of significant increases in nondurable goods production in the state. During the latter part of 1983, when the growth of nondurable goods output began to slow, a revival in durable goods manufacturing began to contribute to a healthy economic revival. Last year also saw high rates in nonresidential construction in Texas and a boom in housing, paced by very high year-over-year rates of growth in multifamily construction.

In 1984, *Texas* will see continued declines in its unemployment rate. Drilling activity will continue to recover slowly, but fairly steadily. Demand for a number of types of drilling equipment should revive later in the year. At the same time, however, continued problems in Mexico will make recovery slow on the Mexican border, while the maintenance of rising defense expenditures and civilian demand for high-technology products contribute to economic robustness in the state's central corridor. The high levels of apartment construction that occurred last year and are continuing this year are contributing to significant multifamily overbuilding that will lead to pronounced declines in such construction this year, however. Single-family home construction should continue to increase somewhat in Texas, dampening the effects of the overall decline in home construction that is highly likely this year.

In *Louisiana*, some improvement in oil and gas drilling, a significant pickup in durable goods manufacturing, and growth in contract construction activity are likely to lead to moderate recovery in 1984. However, Louisiana's unemployment rate is considerably higher than that of the nation. This suggests that the state has farther to go than any of the other southwestern states before it can be scratched off the economic sick list.

The importance of natural gas to *Oklahoma* suggests that energy activity there will also prove somewhat slow in picking up, and will contribute to a modest recovery in that state. Natural gas deregulation in 1985 should lead to some anticipatory improvement in natural gas drilling in late 1984, however, and oil drilling should see some improvement for the rest of the year. Also, 1984 should see continued growth in the state's manufacturing sector, which clearly began to recover in 1983. In spite of the slow revival implied by lagging improvement in the state's labor statistics, there is clear evidence that the Oklahoma economy turned up during 1983. The state's unemployment rate is already below that of the nation, and should continue to fall.

The Mountains

Tucker Hart Adams
United Banks of Colorado

The 1982-1983 recession was the worst downturn the Mountain region has experienced in almost 30 years. Nonfarm employment fell 0.2 percent in 1982, its first decline since 1954, then grew only 1.5 percent in 1983—far below the 5.4 percent trend rate of the 1970's. Nonresidential construction, after falling in 1982, expanded by only 5 percent in 1983, reflecting the oversupply of office space in Denver and Phoenix. The recession in the Mountains continued into 1983, and the region's recovery lagged the national upturn by about six months.

Once the recovery arrived in May or June of 1983, however, it rapidly outpaced the national advance. Regional income growth of 7.3 percent through the third quarter of 1983 exceeded the national rate of 6.2 percent. This was the second largest regional gain in the nation, but it was not felt equally among the eight states in the Mountain region. While advances in Colorado and Arizona ranked third and seventh in the nation, respectively, Wyoming, which has been devastated by the oil price collapse, ranked 45th.

Tucker Hart Adams

We expect the region's growth to continue through 1984 as income expands by 9.7 percent. Although this is far below the annual rate of 13.1 percent experienced during the 1970's, our inflation projection is also lower. In inflation-adjusted terms, personal income growth will be slightly below the 1970's trend.

Employment will increase almost 4 percent in 1984, after its meager gain in 1983. Arizona and Colorado will post the strongest job gains in 1984, while Montana, hard hit by slumps in mining, lumber and agriculture, will show little improvement. Unemployment will drop a full three percentage points to 5.7 percent in 1984. The region made spectacular progress in 1983 as employment fell to 6.2 per-

Table 7: Mountain Region Economic Indicators

			Forecast	Percent Change		
	1982	1983	1984	1982	1983	1984
Personal income (billion $)	126.0	135.4e	148.6	7.0	7.5	9.7
Retail trade (billion $)	59.2	64.0e	69.7	5.7	8.0	9.0
Employment (thousands)	4,582.0	4,632.0e	4,813.0	-0.2	1.1	3.9
Unemployment (%)	8.7	8.6e	5.7	N.A.	N.A.	N.A.
Housing construction (thousand units)	100.8	162.5	157.6	0.6	61.1	-3.0
Nonresidential building (billion $)	4.4	4.6	4.7	-5.9	4.8	3.0
Population (thousands)	11,967	12,170e	12,475	2.6	1.7	2.5

e = estimate

cent in November, almost five percentage points below its peak of 10.8 percent in February. Colorado had the lowest unemployment rate in the region, 5.5 percent; New Mexico had the highest, 9.0 percent, reflecting the relatively slow progress this state has made in terms of recovery. New Mexico's unemployment rate did not begin to fall until July, 1983, while the rates of other states in the region peaked early in the year. Population growth in the Mountain region is closely associated with job opportunities; as employment picks up, this measure will follow suit.

Although construction provided the engine for growth in 1983, the industry will not maintain its momentum in 1984. Once mortgage rates dropped from their peak of 17 percent in 1981 and 1982, the strong population growth of the 1970's translated into a 61 percent gain in home building in 1983. During this period, apartment building proceeded at a rapid pace in both Arizona and Colorado. This is unlikely to continue into 1984. As a result, housing starts are likely to decline slightly, led by a 17 percent retrenchment in Arizona. Nonresidential construction surprised most analysts in 1983, posting a 4.8 percent gain despite office vacancies estimated to be in excess of 20 percent for both Phoenix and Denver. Significant gains in nonresidential building in New Mexico, Utah and Wyoming compensated for declines in Arizona and Idaho, while Colorado's sector remained static. The start of a new electrical power plant in Wyoming caused the rate of advance in the construction payroll there to be the highest in the nation. Hospital and dam building contributed to a 40 percent boost in New Mexico's nonresidential construction.

The recent recession accelerated the structural changes already taking place in the regional economy. While the mining industry still accounts for 6 percent of the region's income, and is three times more important in the region than nationally, the decline in oil prices has stifled growth in that sector. The recovery will cause energy consumption to pick up, but will not provide the impetus needed to resume the growth rates experienced in the 1970's. Mining is particularly important to Montana, Wyoming and New Mexico. The boom-bust nature of energy activity in those states will be a factor limiting future growth. The decline in mining payrolls in Montana was the second worst in the nation in mid-1983.

Manufacturing in the region is gaining in importance although it provides only 14 percent of regional income in contrast to 24 percent nationally. Defense and high-technology industries provide a large share of manufacturing employment in the Mountain region: 40 percent of Arizona's and 25 percent of Colorado's manufacturing is high technology, relative to 7.5 percent nationally; and 15 percent of Utah's manufacturing is defense-related. Traditionally smokestack industries are relatively absent. The lumber and wood products industry is dominant in Montana and Idaho, comprising 30 percent and 40 percent respectively, of the manufacturing base. The strong growth in housing starts in 1983 enabled many lumber firms to expand employment from recession-reduced levels. Since housing starts are expected to remain at current levels in 1984, the recovery in the lumber sector should level off.

Although the service industries grew little during the recession, they will show significant progress in 1984, in line with the projected 9.7 percent expansion in personal income. Nevada, which is closely tied to the fortunes of tourism and the gaming industry, was hurt in 1983 by the reduced levels of travel and tourism induced by the recession. A substantial improvement is expected in 1984, but the state will be hurt by continued competition from gaming in Atlantic City. This will be felt most keenly in the southern part of the state.

Military expenditures will offset declines in other government payrolls, the largest source of income in the region. Agriculture is not expected to post significant gains; 60 percent of the region's farm income is from livestock, and the escalation of feed costs prompted by the midwest drought and the payment-in-kind (PIK) program will continue to hinder the industry. Overall, the Mountain region will have a good year in 1984. Although a stagnant energy industry will put the region on a lower growth curve than it enjoyed in the 1970's, a growing service sector and an increasingly important manufacturing sector will ensure that the area remains the most rapidly growing in the United States.

The Pacific

Joseph A. Wahed
Wells Fargo Bank, N.A.

Joseph A. Wahed

The Pacific region is breathing easier once again.[1] Business activity has improved in most of the states comprising the region and along a broad group of industries. There is a widespread feeling that the worst is over and that 1984 will also be one of expansion. Even in the hard-hit lumber areas of the northwest, confidence levels have risen although activity is still far off the pre-recession peak. In many other industries, output and employment have increased smartly, reflecting a remarkable rise in sales. As a result, profits are much improved and balance sheets are now stronger in a variety of corporations.

The current recovery started in mid-1982, but activity really took off in the Spring of 1983. Lower interest rates, sharp tax cuts, and the region's continued inflow of defense contracts triggered a chain reaction rebound in the region's economy—first housing and lumber, then consumer spending, then a whole gamut of financial and other service industries, including tourism. Unemployment fell sharply as total employment rose by over 500,000 between late 1982 and 1983. This led to a gain of nearly 7 percent in personal income—most of it "real" since prices hardly increased. Still, the Pacific region is not quite out of the woods. Some important industries are still facing financial strains and are recovering hesitantly. These include agribusiness, aircraft assembly, commercial (mainly office) construction, and export industries. In addition, bank deregulation and lower energy prices will continue to cause instability.

For 1984 and even beyond, most indications point toward additional growth in the Pacific region. The determining forces will continue to be centered around favorable job growth and rising real incomes in an environment of moderate inflation and relatively stable interest rates.

As we enter 1985, however, pressure on the economy will start to build and troubles will appear here and there. First, increased competition for labor will cause salaries and benefits to rise at a faster rate, despite continued sharp belt-tightening measures in most corporations. This will add to inflationary pressures. Second, the large budget deficit (and rising inflation rates) will force the Federal Reserve to maintain a high interest-rate policy, unless the economy slows to a crawl. The net results of these forces is that the Pacific region's economy will still grow but its interest-sensitive industries will zig and zag for a while.

Approximately 600,000 new jobs will be added to the Pacific region's work force in 1984, on top of the 300,000 increase in 1983. Job growth is, of course, concentrated in California, which accounts for 75 percent of the region's total employment; however, Oregon, Washington, Alaska and Hawaii will also add to their work forces, reflecting the widening and deepening of the recovery. This strong increase in employment is all the more remarkable since it is taking place in an environment of fairly rigid belt-tightening by many corporations, particularly in deregulated industries such as banking, airlines and communications. Still, increased hiring in construction, manufacturing and retailing will lower the region's unemployment rate to 7.5 to 8 percent by late 1984. As in other parts of the country, the same phenomenon of a slow-growing labor force is helping to push down the unemployment rate at a faster rate than usual.

More confident consumers and rising incomes are bound to cause further growth in consumer markets. Last year, retail sales in the Pacific region rose by nearly 9 percent with durables advancing a strong 15 percent. In California alone, nearly one million new cars (half of them imported) were sold, and further growth is all but assured. Several favorable factors will stimulate consumer spending in 1984 in the Pacific region:

(1) Growth of 10 percent, or $43 billion, in personal income;
(2) A moderate inflation rate, below the national average;
(3) Pent-up demand following three years of recession;
(4) Improvement in tourism, especially in the well-known tourist spots of Hawaii and California; the Olympics in Los Angeles and the Democratic National Convention in San Francisco should also increase the flow of summer visitors to the West Coast;
(5) The sharp increase in housing activity in 1983 and further growth this year will push sales of appliances, home electronics (including computers), and other home-related goods and services.

The recovery is spreading rapidly in the region's important manufacturing industries. Employment has already risen sharply (over 100,000 in California alone) in such capital goods industries as machinery and electronics, and

[1] The Pacific region includes California, Oregion, Washington, Alaska and Hawaii, and accounts for roughly 15 percent of the U.S. economy. Its population is 34 million, of whom 15.4 million are employed. Total personal income is estimated at $476 billion; per capita income is $14,000.

Table 8: Selected Economic Indicators for the Pacific Region

	1982	Estimate 1983	Forecast 1984	Percent change 1983	Percent change 1984
Population (millions)	33.1	33.5	34.0	1.3	1.4
Personal income (billion $)	405.4	433.1	476.0	6.8	10.0
Employment (millions)	14.5	14.8	15.4	1.6	4.0
Unemployment (%)	10.3	9.8	8.0	—	—
Retail sales (billion $)	169.8	184.4	205.0	8.6	11.0
Nondurables	119.0	126.0	136.0	5.9	8.0
Durables	50.8	58.4	69.0	15.0	18.0
Farm output (billion $)	18.6	18.7	19.6	0.5	5.0
Housing permits (thousand units)	121.5	200.0	230.0	65.0	15.0
Defense contract awards[1] (billion $)	33.4	39.0	43.0	17.0	10.0
Total bank loans (billion $)	137.9	140.8	155.0	2.1	10.0

[1]Fiscal year. Includes procurement *and* R&D.

Note: 1983 figures partly estimated; 1984 forecasts by Economics Department, Wells Fargo Bank.

in basic sectors such as chemicals, lumber and paper. Higher capacity usage is forcing many previously cautious manufacturers to expand and invest in new facilities. Stronger demand for cars has meant higher output and employment in the region's auto-assembly sector with further gains ahead as the Toyota-GM agreement takes effect later in 1984. In addition, with consumer demand so buoyant, other consumer-related manufacturing (furniture, restaurant supplies, entertainment goods, etc.) is also increasing. It is true that not all lumber mills in the Northwest are operating, but continued gains in home sales should help in the months ahead. Aircraft assembly in Washington and California is still hurting from the recession, although some moderate improvement is expected in the coming year. New orders for commercial aircraft are just now starting to improve as the world's airlines experience an increase in passenger and freight traffic and as profits recover.

In the Pacific region's important defense sector, the growth in procurement and R&D has been nothing short of phenomenal. We estimate that such spending in the region in FY 1983, will have reached $39 billion, for an increase of 17 percent; more moderate gains are expected in FY 1984. The Pacific region also receives substantial funds for numerous military bases, especially in Hawaii, California and Alaska. Spending on space programs is an added boost to such areas as Southern California and Seattle.

Housing activity will remain fairly brisk in the Pacific region, but last year's spurt of growth will not be repeated. Still, home builders are quite confident about sales this year and have gone ahead with their plans. Mortgage-lending institutions, especially savings and loans, are quite flush with deposits and are eager to make construction loans. At the same time, home-buyers appear finally to be adjusting to the idea of a variable mortgage rate and are back in the market. Home prices rose very little in 1983, and there are no indications of a renewal of an inflationary psychology yet. It is basically a buyer's market at present. All in all, new home permits will increase 15 percent this year to 230,000 units. Changing tastes and demographics in the Pacific region have meant more emphasis on condominiums, rentals, smaller single-family homes, and a move toward central-city living by empty nesters and senior citizens.

Commercial and industrial construction activity will be mixed this year. The recovery in manufacturing has improved the market for industrial buildings, and new industrial parks are being built in the rapidly growing areas of the Pacific region. Commercial construction is, however, still under pressure, much of it caused by an overbuilt office complex, especially in parts of Los Angeles, San Francisco, and other large cities. As a result, leasing activity has dropped sharply and with it square footage costs to the lessee. The strength in retailing has increased the need for distribution centers, as well as regional shopping malls, throughout the region.

The economic recovery has not yet benefited the agribusiness or mineral industries of the West. Farmers have had to struggle in the face of fairly low commodity prices and poor demand during much of 1983. However, prospects are a little better, reflecting not only drought in other parts of the country but also a fundamental strengthening in net farm income. Cotton prices have increased, while demand for fresh fruits and vegetables is rising due to steady increases in "natural" food consumption. Meat prices have risen somewhat, but the outlook is uncertain at present because dairy farmers are still slaughtering cattle.

Alaska's oil industry has been hurt by low prices and related cutbacks in drilling exploration. In California, another important producer of oil, activity has held up a little better and future plans call for wider exploration, especially in the southern California coastal area.

A better year for business is forecast for the various states in the Pacific region. Growth will likely slow in the months ahead but only temporarily. The real challenge will come in 1985, when stronger credit demands from the private sector will clash with the government's need to finance the deficit. Any rise in interest rates would quickly hurt the interest-sensitive sectors of the economy, housing in particular. So, while the year 1984 looks quite favorable for businesses and consumers in the Pacific region, the years beyond that are still fraught with uncertainty.

Research Bulletin

Restricted Stock For Executives

by Harland Fox

The Conference Board

number 159

1984 The Conference Board, Inc.

THE CONFERENCE BOARD, INC.
845 Third Avenue, New York, N.Y. 10022
THE CONFERENCE BOARD OF CANADA
25 McArthur Road, Ottawa, Ontario, K1L-6R3, Canada
THE CONFERENCE BOARD, INC.
Avenue Louise, 207 Bte 5, B-1050 Brussels, Belgium

SINCE THE BEGINNING of the decade, a relatively small, but increasing, number of companies in major types of business have used restricted stock awards as part of their management incentive program. (See Table 1 for an industry distribution of companies that have such programs.) These restricted stock awards have two major characteristics: (1) The award is an *outright grant* of company shares; recipients do not have to buy the stock.[2] (2) The shares are forefeitable and nontransferable until the executive completes a specified period of continued employment with the company. In brief, the grant is a deferred bonus award, the payout of which is contingent upon continued employment.[3]

This arrangement for "earning out" an award by continued service can be used in a variety of ways, but two basically different approaches are found among the 91 plans studied here.[4] Fourteen of the plans provide *special awards to selected middle-management employees.*

These plans are designed to give special recognition to, and hold on to, fast-track, exceptional performers and persons with special skills and, in some cases, new hires. As a rule, managers who receive these awards are not eligible for stock options or an annual bonus award.

Most (77) of the plans, however, are essentially *incentive plans for top executives,*[5] who usually are eligible for stock options and annual bonus awards, as well.

[1] *Top Executive Compensation 1983 Edition.* The Conference Board, Report No. 840, 1983, p. 2.

[2] Some companies do have restricted stock *purchase* plans, however. Under these plans, not included in this study, an executive purchases shares, usually at a discount, but cannot sell the shares for a specified period of years. If the executive terminates employment during this period, the stock must be sold back to the company at the initial purchase price. See F. Thomas Anderson, "Appraising Restricted Stock." *Compensation Review,* Second Quarter, 1980, p. 26.

[3] Not included in this study are three plans that add corporate performance requirements to the service requirements. For an examination of this type of plan, see George A. Goddu "TARSAP: A New Way to Award Executives Restricted Stock." *Financial Executive,* August, 1980, p. 39. These plans are essentially the same as performance share plans; see Harland Fox, *Executive Incentives: Long-term Performance Share/Unit Plans.* The Conference Board, Research Bulletin No. 132, 1983.

[4] All of the companies in each industry shown in Table 1 that had a restricted stock plan in May, 1983 were asked for data, a total of 220 companies. The ninety-one that provided usable information include sixty-one manufacturers, ten retailers, eight banks, six construction companies, four stock insurance companies, and two gas and electric utilities.

[5] Only 9 of these 77 plans were adopted prior to 1975; twenty-three were installed during 1975-1979, and the other 45 between 1980 and 1983.

Top Executive Incentive Plans

The most common purpose of restricted stock award plans is to provide a *supplemental* bonus to a limited group of top executives in recognition of exceptional company performance and exceptional personal performance for which the regular bonus award is not really adequate reward.[6] At the same time, it is an award that the executive must "earn-out"; most bonus plans do not require this. Five companies specifically state that restricted stock awards usually are limited to those years in which company performance is exceptionally good. In addition, almost 60 percent of the companies explain that recipients of restricted stock in any year are "essentially a select group of top performers" chosen from the executive corps. In the other companies, most of those eligible receive an award, but individual performance generally is reflected in the size of the award.

The usefulness of restricted stock in retaining personnel is underlined by the practice in some companies of giving restricted stock as a front-end bonus to newly hired executives. Another practice makes this award to a group of executives in a newly acquired business unit, or even to an executive who appears to find some other company more attractive.

By definition, restricted stock award plans are also a device for getting company stock into the hands of executives at no cost to them. Thus, they can be a supplement or substitute for stock options, which almost all of these companies have. In addition, in most plans, the executives can vote the stock and receive periodic dividends during the restriction period, a recurring reminder of the value of the grant. The Securities and Exchange Commission has held that the granting and vesting of restricted stock is not a "purchase" of shares for the purpose of Section 16(b), which applies to "insider" trading.

Because of the variety of uses to which restricted stock awards are put, it is not surprising that not all plans provide for grants year after year. For example, 20 of the companies have granted awards only intermittently on no fixed schedule; each year a decision is made about the appropriateness of awards. Other companies grant awards

[6] Not included in this study are two companies in which restricted stock is an integral part of the annual bonus plan; that is, it is the normal form in which bonuses are paid.

Table 1: Prevalence of Restricted Stock Award Plans, 1980 and 1983

Type of Business	May, 1983 Total Companies	May, 1983 With Restricted Stock Number	May, 1983 With Restricted Stock Percent	May, 1980 Percent with Restricted Stock
Construction, publicly held	28	11	39%	30%
Manufacturing	510	137	27	18
Retail trade	92	23	25	19
Insurance, stock	71	16	23	9
Commercial banking	227	28	12	7
Gas and electric utilities	92	5	5	4

every two (seven), or three (one), or four (one), or five (three) years. In the remaining 45 companies (58 percent), the restricted stock awards are made every year, but not necessarily to the same executives.

Who Gets Awards?

By and large, restricted stock awards are made to a very limited number of top executives. For example, among the 77 plans studied here, the median number of people who actually received an award under the most recent grant is 19, with the middle half of the plans reporting 9 to 60 participants. The number of participants in all plans is summarized below:

Number of Participants	Plans Number	Plans Percent
1-9	21	27%
10-19	18	23
20-29	9	12
30-70	15	19
100-130	5	7
275-725	5	7
1000-4000	4	5
	77	100%

Obviously, the range in the number of participants is quite large; some plans gave an award to only one executive, but one gave awards to 4,000 managers. However, the nine plans that gave awards to 275 or more employees are plans in which a relatively large number of people are *formally eligible* for awards—but not all receive them. For example, the 4,000 awards given by one company represent 57 percent of the 7,000 exempt employees who are eligible. By and large, in the plans that granted awards to 130 or fewer executives, the number eligible is not much greater than the number who received awards. The increasing number of participants means that awards are being pushed down to a somewhat lower executive level.

This is illustrated in Table 2, which shows the salary of the lowest-paid executive who received an award under the most recent grant. The median salary of the lowest-paid participant in plans that granted stock to fewer than 20 executives is $75,000; in plans with 20 to 70 executives, the median is $60,000. Obviously, these plans cover only upper management. The plans giving awards to 100 or more employees reach into middle management: The median salary is $35,000 for the lowest-paid participant.

Size of Awards

As already noted, participants in restricted stock plans tend to be a highly selected group. However, any number of individual considerations may be reflected in the size of a restricted stock grant to a specific executive. Base salaries (which correlate with position in the management hierarchy), however, generally serve as a guide on which the relative size of individual restricted stock awards are determined.

To get a measure of the size of awards, companies were asked to indicate the value of the award, as a percentage of base salary, for the highest- and lowest-paid recipient and for the average-paid recipient of an award under their most recent grant. (The value of the grant is the product of the number of shares granted and the market value of the shares on the date of grant.)

The median award for the highest-paid recipients (practically all of whom are chief executive officers) is the equivalent of 70 percent of base pay, and one-third of the awards are equal to one year's salary or more. (See Table 3.) Awards for the average-paid and lowest-paid recipients are significantly smaller: The median award represents one-third of base pay for the average participant and about one-quarter of base pay for the lowest-paid recipient.

To some extent, the size of these awards is probably influenced by the fact that in almost 60 percent of the plans the awards are made every year. Awards made every two or three years might be larger, but the data are not adequate to measure this.

Table 2: Salary of Lowest-paid Restricted Stock Recipient

Salary of Lowest-paid Restricted Stock Recipient	Total Plans		Plans by Number of Recipients: Less Than 20		20-70		100 and Over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
$150,000-$240,000	5	7%	5	14%	—	—	—	—
100,000- 149,000	10	14	8	22	2	9%	—	—
75,000- 99,000	12	16	6	16	5	22	1	7%
50,000- 74,000	21	28	12	32	7	30	2	14
25,000- 49,000	26	35	6	16	9	39	11	79
Total[1]	74	100%	37	100%	23	100%	14	100%
Median Salary	$60,000		$75,000		$60,000		$35,000	
Middle 50% Range	40,000-90,000		50,000-108,000		40,000-80,000		29,000-47,000	

[1]Excludes three plans for which information not obtained.

Table 3: Size of Restricted Stock Awards

Size of Award[1] As Percent of Salary	Highest-paid Recipients		Average-paid Recipients		Lowest-paid Recipients	
	Number	Percent	Number	Percent	Number	Percent
200% and over	6	10%	3	4%	2	3%
150-199	7	13	3	4	2	3
100-149	6	10	7	10	6	10
90- 99	2	3	—	—	—	—
80- 89	6	10	2	3	1	2
70- 79	4	7	2	3	2	3
60- 69	3	5	3	4	2	3
50- 59	4	7	2	3	6	10
40- 49	5	9	7	10	4	6
30- 39	4	7	8	12	3	5
20- 29	4	7	12	18	12	19
10- 19	6	10	15	23	16	25
Less than 10%	1	2	4	6	7	11
Total	58	100%	68	100%	63	100%
Median Award	70%		33%		24%	
Middle 50% Range	37-144		18-68		11-58	
Median Salary	$250,000		$85,000		$60,000	
Middle 50% Range	190,000-425,000		57,000-129,000		40,000-90,000	

[1]Number of shares x market value at time of award.

The Restriction Period

The major features of restricted stock are: (1) that it may not be sold or transferred by the executive during the period that restrictions apply, and (2) that it is subject to forfeiture if the executive terminates employment under certain conditions during this restriction period. As a rule, the restriction period is a specific number of years following the date of award. At the end of that time, *all* restrictions are off; that is, the entire award is *fully vested*. Under these plans, an executive must stay with the company from one to ten years after the date of grant before *all* of the stock award is available.[2] (See Table 4.) The most common restriction period is five years; three years and ten years are also common.

In 31 percent (21) of these plans, none of the restricted shares are made available until the end of the restriction period, although this arrangement is limited to plans with

[2]Not included in Table 4 are four companies in which awards become fully vested only at retirement; one company in which half of the award is vested five years after the date of grant, and the other half at retirement; and one company in which all awards are vested on January 1, 1986, regardless of the date of grant (the first awards were made in 1980).

Table 4: Restriction Periods[1]

Years in Restriction Period	Total Plans		Partial Vesting[2]	
	Number	Percent	Yes	No
1	1	1%	—	1
2	1	1	1	—
3	10	16	5	5
4	7	10	3	4
5	29	43	19	10
6	4	6	4	—
6½	1	1	1	—
7	4	6	3	1
8	1	1	1	—
9	1	1	1	—
10	9	14	9	—
Total[3]	68	100%	47	21

[1] Period from date of grant until all restrictions are lifted.
[2] Restrictions on some part of award are lifted prior to end of restriction period.
[3] Excludes two plans for which data are not available, and seven for which restriction period varies.

a restriction period of five years or less. Most (69 percent) of the plans, however, provide for "partial vesting" during the restriction period; that is, some part of the award is made available periodically prior to the end of the restriction period.

There is considerable variety in these partial vesting schedules, as Table 5 illustrates. However, except for one plan in which part of the award is available at the date of grant, no shares are vested until after one to six years. In almost half (21) of the plans, the first blocks of shares are vested one year after the date of grant.

Forfeiture Provisions

As a general rule, the unvested portion of a restricted stock award is forfeited only if an executive quits or is fired before the restriction period ends. Conversely, if the executive dies, becomes totally and permanently disabled, or retires before the period ends, all restrictions usually are lifted immediately and the award becomes fully vested.

The major exception to this general practice is found in 11 of the 77 plans, which are set up so that unvested portions of the award are forfeited if the executive dies, becomes totally and permanently disabled, or retires before the restriction period ends. In another nine plans, the forfeiture provisions for death, disability and retirement may differ, as indicated below:

- In three plans, voluntary early retirement is considered a quit.
- In one plan, the award is forfeited unless it was made at least six months before death, disability or retirement; in another plan, the award must be made at least one year before.
- In one plan, the award is fully vested at death; but for disability and retirement, the unvested portion is forfeited if the executive is not 60.
- In one plan, the award is fully vested at death or disability, but unvested portions are forfeited at retirement.
- In one plan, the award is fully vested at disability or retirement, but unvested portions are forfeited at death.
- In one plan, the award is fully vested at retirement, but unvested portions are forfeited at death or disability.

In three other plans, none of the award is forfeited at death, disability or retirement, but must be "earned out" in some cases. For example, in two plans, the award is fully vested at death, but unvested portions must be earned out according to the regular vesting schedule for retirement and disability. In another plan, the award is fully vested at death or disability, but is not fully vested until two years after retirement, whatever the vesting schedule.

Form of Grant

Restricted stock grants may be in one of two forms: actual shares of company stock or "restricted stock units" (RSU's). Seventy-two plans grant actual shares of company stock. The executives are allowed to vote the stock in all but 14 (19 percent) of the 72 plans. In six of these fourteen plans (plus one other) no dividends are paid. Moreover, among the sixty-five plans that do pay dividends, fifty-four currently pay the dividends in cash, seven require that the dividends be deferred until vested stock is delivered, and four plans allow the executive to choose between current cash dividends and deferment of dividends until vesting.

In the 72 plans in which actual company shares are used, shares are registered in the recipients' names at the time of grant. In addition, 33 plans issue share certificates legended to indicate that the shares are subject to the vesting provisions of the plan and deliver them to the executives. In 27 other plans, issued shares are held by the

company until vesting occurs. Ten companies place shares in escrow and three others deliver them to a trustee.

Among the five companies that grant "restricted stock units" rather than actual shares, the RSU's cannot be voted. All but one plan currently pays dividend equivalents in cash; in the other plan, dividend equivalents are deferred until vesting. Two companies convert the RSU's into company shares at vesting; one pays cash; one pays half in stock and half in cash; and one allows the executive to choose the proportion paid in cash and in stock.

Taxes and Accounting

On an award of *actual* restricted shares, there are two ways in which the executive can handle the resulting tax: (1) The executive can pay the tax as the restrictions lapse; or (2) within 30 days after the award is made, the executive can elect, under IRS code Section 83(b) to pay the tax in the year the grant is made.

Very few executives make the Section 83(b) election. Among the sixty-two plans for which information is available, fifty-one report no executives making the election; five estimate that only 1 or 2 percent did so; and one reports 10 to 20 percent. However, five say that all of the executives who received an award chose to pay their taxes at the time of the award. Obviously these executives thought that the price of company stock was going to increase significantly over the restriction period. For tax purposes, the value of the award is the fair market value at the time the stock is taxed, and it is taxed as personal service income, and is subject to withholding and the 50 percent maximum marginal federal tax. Any subsequent appreciation is taxed as a long-term capital gain if the stock is not sold for one year after the date of grant. If these executives subsequently forfeit the shares, they cannot claim a credit for the taxes they have already paid—another reason for not making this election.

As a matter of general practice, then, executives who receive an award of actual shares are taxed as the restrictions lapse. Dividends paid during the restriction period are also considered personal service income. The company receives a tax *deduction* at the same time and for the same amount as the tax to the executive; dividends, too, are deductible.*

For accounting purposes, the compensation cost of an award of actual shares is the market value at the time of the award. This expense is allocated over the restriction period regardless of changes in the market price during the period; that is, any gain or loss in share value during the restriction period is not considered a compensation expense even though it is tax deductible. For example, if the award value is $50 a share, but $75 at the end of the restriction period, the company gets a tax deduction for $75 even though the compensation expense is only $50 for financial reporting purposes. In addition, most observers believe dividends paid on restricted shares are not a compensation expense even though they are deductible. Finally, for earnings-per-share calculations, restricted shares are considered outstanding shares during the restriction period.

The tax treatment and accounting rules under a restricted stock unit plan are essentially the same as for awards of actual shares. The value of the shares (or cash equivalents) issued at the end of the restriction period is taxed to the executive as personal service income, as are the dividend equivalents paid during the period. The company receives

*Dividends to executives who chose Section 83(b) are not deductible to the company.

Table 5: Partial Vesting Schedules (43 plans)

Full Restriction Period	*Number of Plans*	*Partial Vesting Schedule*
2 years	1	½ at grant, ½ after one year, ½ after two years.
3 years	5	⅓ after one year, then ⅓ each year.
4 years	3	25% after one year, then 25% each year (2 plans). 40% after two years, 60% after four years (1 plan).
5 years	17	20% after one year, then 20% each year (11 plans). 25% after two years, then 25% each year (3 plans). 20% after three years, another 30% after four years, and the other 50% after five years (1 plan). ⅓ after three years, then ⅓ each year (1 plan). 60% after three years, then 20% each year (1 plan).
6 years	3	10% each year for five years, other 50% after six years (1 plan). 25% after two years, then 25% each year (1 plan). 50% after three years, other 50% after six years (1 plan).
6½ years	1	20% after two-and-a-half years, then 20% each year.
7 years	2	15% after one year, then approximately 15% each year (1 plan). 20% after three years, then 20% each year (1 plan).
8 years	1	25% after five years, then 25% each year.
9 years	1	20% after five years, then 20% each year.
10 years	9	20% after six years, then 20% each year (6 plans). 25% after four years, then 25% each year (2 plans). 10% after one year, then 10% each year (1 plan).

Table 6: Restricted Stock Awards to Middle Management in 14 Plans

Number Who Receive Award Each Year	Percent of Eligible	Number Eligible
5	2%	300
10	less than 1%	4,500[a]
10	less than 1%	2,000[a]
12	less than 1%	6,000[a]
21	12%	181
21	4%	600
23	less than 1%	2,400[a]
30	1%	2,600[a]
35	18%	200
50	N.A.	N.A.
50	less than 1%	14,000[a]
108	19%	575
200	less than 1%	22,000[a]
206	12%	1,700

[a]All exempt employees.

In half of the companies, the entire exempt population is eligible for an award; in the other half, considerably less than the total exempt population is eligible as a practical matter.

a tax deduction for the share value and also receives a deduction for dividend units at the time they are paid.

Similarly, share value at the start of the restriction period is accrued as a compensation expense during the restriction period, except that *changes* in share value during the period are a compensation expense for units that are to be paid in cash. Dividend equivalents are a compensation expense. Share units that are to be paid in actual shares are considered common stock equivalents for earnings-per-share calculations.[9]

Special Award Programs for Middle Management

Fourteen of the ninety-one companies use restricted stock as the form of the payout under special award programs for middle-management employees. Under the program, awards are given to fast-track, exceptional performers, or persons with special skills in management, scientific or technical jobs, or, in at least two companies, to new hires. As a rule, these middle-management people are not eligible for stock options or annual bonus awards.

This is an ongoing program in 11 of the 14 companies; that is, awards are made every year. In the other three companies, there is no predetermined schedule; awards are made intermittently. In the eleven companies with an annual program, five also give restricted stock to top executives.

Relatively few middle-management employees are given an award in any year. Only three companies grant restricted stock to more than fifty employees, as Table 6 indicates.

Another way to describe the group covered is by the salaries of the lowest and of the highest paid. The median salary is around $35,000 per year for the lowest paid and about $100,000 for the highest paid, as the tabulation below indicates:

Lowest-paid Eligible	Highest-paid Eligible
$20,000	$100,000
21,000	100,000
23,000	105,000
24,000	60,000
25,000	79,000
30,000	100,000
31,000	175,000
35,000	75,000
35,000	93,000
40,000	80,000
40,000	88,000
49,000	112,000
53,000	84,000
66,000	525,000

The typical award each year is 30 percent or less of base salary, as the data for ten companies illustrate:

Median Award	Range of Awards
8% of Salary	6% to 12% of Salary
10	8 to 12
12	10 to 20
12	10 to 25
13	9 to 16
20	20 to 25
30	20 to 60
75	50 to 80
100	50 to 200

100 but no more than $60,000

A recipient of a restricted stock award must stay with the company another two to ten years after the date of the grant before *all* of the stock is available. Most commonly, five years are required before this "full vesting" occurs, as shown below:

Years for Full Vesting	Number of Companies
2	2
3	2
4	1
5	5
2-5 (varies)	2
8	1
10	1

Ten of the plans also provide for "partial vesting"; that is, some part of the award is made available prior to the end of the period needed for full vesting. (In four com-

[9]For a detailed comparison of RSU's and actual shares, see Carol Meyers Edelstein, "Long-term Incentives for Management, Part 4: Restricted Stock," *Compensation Review*, First Quarter, 1981.

panies, none of the stock is available until full vesting occurs.)

These partial vesting schedules are shown below for the nine companies for which data are available:

Partial Vesting	*Fully Vested*
50% after one year; 50% after two	2 years (1 company)
One-third after one year, then one-third each year	3 years (2 companies)
20% after one year, then 20% each year	5 years (3 companies)
25% after two years, then 25% each year	5 years (1 company)
20% after three years, then 20% each year	8 years (1 company)
20% after five years, then 20% each year	10 years (1 company)

In almost all (11) companies, if a recipient of a restricted stock award dies, becomes totally and permanently disabled, or retires before all shares are fully vested, the full award becomes vested immediately. In one company, a recipient forfeits unvested stock if the reason for leaving is disability; at death or retirement, full vesting occurs. In another plan, unvested shares are given to retirees only when the partial vesting schedule is completed; at death or disability, all unvested shares are vested immediately. In a third plan, unvested shares must be "earned out" after retirement or disability; unvested shares are vested immediately at death.

Except for one company with a restricted stock unit arrangement, all of the firms use actual company shares as the form of restricted stock award.

- All but one of these thirteen companies allow the recipient to vote the stock during the vesting period.
- Except for the one company, all pay regular cash dividends to the recipient during the vesting period.
- In three plans, when restricted shares are granted, they are delivered to the recipient. In seven plans, they are held by the company; in three plans, shares are placed in escrow.

In the one company that grants restricted stock units, a recipient cannot vote the stock units. "Dividend equivalents" are paid as regular cash dividends. After full vesting, all RSU's are paid in company stock.

ANNOUNCING The Conference Board

Chart Service

What is the Chart Service?

The Conference Board's corporate organization chart collection helps top management identify and track fast-breaking organizational trends. The service includes the organization charts of almost 500 leading corporations, encompassing every major U.S. industry.

Because we continuously update and expand our chart inventory, you are kept abreast of organizational developments which affect corporate growth.

Each chart is dated and is completely current as of that date.

In many cases you can also receive additional detailed charts of subsidiaries, divisions, plants, staff functions and operating groups.

Features of the Chart Service:

- Up-to-date
- Constantly expanding
- Tailored to your specific needs
- Inclusive (detailed sub-charts available)

You Need the Chart Service To:

- Give you immediate access to critical information on a cross section of U.S. industry
- Find out how specific companies are organized—and how this can be applied to your own corporate structure
- Gain practical data on the titles actually used for corporate and divisional executives
- Discover how to best structure key functions —and where staff units report at the corporate level

For more information:

Linette Stein Waters
Supervisor
Fee-Paid Information Services
The Conference Board, Inc.
845 Third Avenue
New York, NY 10022
(212) 759-0900

The Conference Board

Chart Service Order Form

Name/Title

Company

Street

City/State/Zip

Signature/Date

☐ I would like to purchase the entire collection of approximately 500 corporate charts for $950.

☐ I am only interested in selected organization charts. Please send me more information.

☐ My check for $_____ is enclosed.

☐ Please bill me later.

Return to:
Linette Stein Waters
The Conference Board, Inc.
845 Third Avenue
New York, N.Y. 10022
(212) 759-0900

KH105-29.42A

Research Bulletin

Disclosure of Business Data: Technological and Regulatory Trends

By Nathan Weber

The Conference Board

number 164

Glossary

Beneficial Shareholder: The actual or true owner of a security that may be registered under a different name such as that of a broker, an institution, or a depository.

Discount Broker: A broker whose service consists solely of executing purchase and sales orders of securities for investors, as opposed to a "full service" broker who provides investment research and advice.

Class of Security: Corporations issue varieties of financing instruments, sometimes described as classes; for example, bonds and other evidences of debt, various types of preferred stocks, and common stocks.

Institutional Investors: Large purchasers of corporate securities, including insurance companies, trust departments of commercial banks, investment companies, and pension funds.

Investor Relations Executives: Those in a corporation responsible for communicating with the investment community, including financial analysts, the business press, and shareholders.

Line or Segment Data: Profits, sales, expenses and other financial information concerning subsidiaries, product lines or particular activities of a corporation, as opposed to the corporation as a whole.

Option: A contract providing the right to buy or sell a security at a certain price within a specified period of time.

Record Date: The date on which a shareholder is registered on a corporation's books, and is allowed to vote.

Registered Representative: An employee of a brokerage house, registered with the National Association of Securities Dealers, who buys and sells securities for customers, and offers investment advice. Sometimes referred to as an account executive or broker.

Security Analyst: An individual whose function it is to evaluate corporate and governmental stocks, bonds and other securities, and make recommendations thereon.

Street Name: The name of a securities firm or institution under which securities are registered. The actual owners of the securities are clients of the organization.

Acknowledgments

The author thanks Anthony T. Cope, Wellington Management Corporation; Terry Earle, New York Society of Security Analysts; John C. Fuller, The Foxboro Company; Francis Lees, St. John's University; H. Frank Pearson, H.F. Pearson & Co.; Vincent Pica, H.F. Hutton; Shellie Roth, Genex Corporation; Carol Ruth, Hill & Knowlton; Howard Silverman, Drexel Burnham Lambert; James Stier, W.R. Grace; Lou Thompson, National Investor Relations Institute; James Wager, U.S. Steel Corporation; and Roger Williams, Dime Savings Bank of New York for their suggestions and advice in preparing this report. At The Conference Board, I am particularly grateful to Frank Walsh for advice at both ends of the project, and to Erma Pecoraro for typing a semi-legible manuscript.

© 1984 The Conference Board, Inc.

THE CONFERENCE BOARD, INC.
845 Third Avenue, New York, N.Y. 10022
THE CONFERENCE BOARD OF CANADA
25 McArthur Road, Ottawa, Ontario, K1L-6R3, Canada
THE CONFERENCE BOARD, INC.
Avenue Louise, 207 Bte 5, B-1050 Brussels, Belgium

Introduction

> "Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman."
>
> —Louis D. Brandeis,
> *Other Peoples Money,* 1914

Two courses of action are open to lawmakers seeking change in social and economic policy and practice. One is to legislate the desired changes, requiring certain practices to cease or be modified, or new courses of behavior to be undertaken. The other alternative is to demand information.

It is this second alternative, mandating the disclosure of relevant data, that often distinguishes the U.S. system of government. Its underlying assumption is that the ordering of social and economic policy is best left to the consuming public—or publics—whose members will effect what change is required so long as they have sufficient and accurate information on which to base their decisions. Through the power of their dollars—their purchases or investments—the argument holds, the public will compel economic and social institutions to respond favorably.[1] Even a cursory review of major legislation enacted during the 1970's reveals how much emphasis lawmakers placed on disclosure—often by itself, but occasionally in addition to practical change. In real estate and land sales, banking transactions, occupational safety, advertising, pensions, credit practices, consumer protection, traffic safety, and numerous other areas, major laws were passed requiring, primarily, the release of information. To cite one example: Following years of complaints that banks were disinvesting in minority neighborhoods, thereby precipitating urban deterioration, Congress passed the Home Mortgage Disclosure Act of 1975. (Title III, PL 94-200). Rather than proscribe the practice of disinvestment, the Act required lending institutions to indicate the number and amount of loans they were granting in each census tract within their respective communities. Bank customers might then determine whether their particular neighborhood was being deprived of a sufficient percentage of loans, and could respond by withdrawing their accounts, or by requesting a regulatory agency to deny the lender certain privileges.

A belief in the efficacy of publicly available information can be found in two of the nation's bellwether disclosure laws—the Securities Act of 1933 and the Securities Exchange Act of 1934—which date back to the New Deal, and pertain to the flow of information between corporations and their shareholders, and between securities dealers and exchanges. At the time of passage, the economy was in the throes of the Great Depression, a breakdown that many attributed to, among other factors, the misallocation of capital and the related lack of constraints on speculative and fraudulent practices within the stock market.[2]

The frenetic and haphazard pace at which capital was raised in the market, according to numerous critics, bore little relationship to where such capital was needed for optimum productivity. As a remedy, influential voices within and outside the government called for a strong policy of central industrial planning including, for example, "an NRA for finance."[3] But framers of the disclosure laws specifically rejected such a notion, upholding instead the view that what was required was the open presentation of all relevant information about the stocks, bonds and other securities that corporations were to issue for sale. In his introductory message to the legislation, President Franklin D. Roosevelt, who had been influenced by Supreme Court Justice Louis D. Brandeis' philosophy, said: "There is. . .an obligation upon us to insist that every issue of new securities to be sold in interstate commerce shall be accompanied by full publicity and information and that no essentially important element attending the issue shall be concealed from the buying public. This proposal adds to the ancient rule of caveat emptor, the further doctrine 'let the seller also beware.' It puts the burden of telling the whole truth on the seller. It should give impetus to honest dealing in securities and thereby bring back public confidence. The purpose of the legislation I suggest is to protect the public with the least possible interference to honest business."[4]

About This Research

Business professionals involved in the disclosure and analysis of information today find their functions increasingly affected by two major developments: the availability of high technological equipment such as computers and word processors, and the trend towards deregulation. An exploration of the specific—and evolving—impact of both developments on the activities of the professionals is the purpose of this study. Information in the report is based on responses to multiple-choice questionnaires received from the following three groups of experts: 403 investor relations executives in publicly held companies with at least $50 million in annual sales; 116 registered representatives affiliated with the Institute of Certified Financial Planners; and 75 security analysts who are members of the Financial Analysts Federation.

[1]Russell B. Stevenson, *Corporations and Information: Secrecy, Access, and Disclosure.* Baltimore: Johns Hopkins University Press, 1980, page 196.

[2]See for example testimony of Walter W. Heller in *The Great Depression: Can It Happen Again?.* Hearings before the Joint Economic Committee, 96th Congress, First Session, October 29, 1979. Washington, D.C.: U.S. Government Printing Office, 1980, p. 22.

[3]Joel Seligman, *The Transformation of Wall Street: A History of the Securities and Exchange Commission and Modern Corporate Finance.* Boston: Houghton-Mifflin, 1982, esp. Chapter 2.

[4]Cited in William E. Van Valkenberg, "Corporate Disclosure Under the Securities Act of 1933 and the Securities Exchange Act of 1934: A Historical Perspective," *Report of the Advisory Committee on Corporate Disclosure to the Securities and Exchange Commission.* Washington, D.C.: U.S. Government Printing Office, November 3, 1977, Vol. 1, page 557.

While even this position generated considerable corporate and securities-market opposition, disclosure of financial information has long since become a regular, institutionalized practice of all publicly held companies, and a generally accepted principle of both corporate and societal conduct. "Just as information is essential to the ability of large corporations to manage our most important economic resources," writes law professor Russell B. Stevenson, "it is equally essential to the ability of the society to govern the behavior of those corporations."[5]

Nor is it only purchasers of corporate securities who demand and expect sufficient information on which to base their investment decisions. Corporations insist on information about those same purchasers. Executives want to know *who* their shareholders really are, as opposed to merely having the name of the institution representing them. While this demand is seldom met to the satisfaction of the corporations, it is a demand made all the more pressing of late by the extraordinary growth of institutional investors, the increasing use of "street name" registration of shares by brokers, and the growing use of central depositories in which the shares are recorded.

Social policy and corporate governance, furthermore, are only two of the reasons underlying the relentless appetite for information. A third reason is that entire professions depend upon it. In particular, financial analysts and stockbrokers, two of the intermediaries between corporations and their shareholders, require a steady stream of data for the proper performance of their primary functions: evaluating securities and making informed investment recommendations to their clients.

It would seem that, with legislators, corporations, stockholders and financial professionals all agreed on the importance of timely and sufficient information, harmony should characterize the disclosure process. The reverse, in fact, is often the case. For, while the need for information is shared by all parties, the desire to withhold data sought by others is also prominent—understandably so, given the sometimes adversarial nature of the relationship among the participants. Security analysts and corporate executives, for example, do not always see eye-to-eye about the value of a particular corporation's stock, or about the type and quantity of information needed to form proper evaluations. A recent poll, undertaken by the Louis Harris organization, revealed that as many as 60 percent of top corporate executives feel that the worth of their company stock is undervalued by Wall Street firms, with the percentage rising within specific industries.[6] And in the pages that follow, readers will see that the most common complaint from security analysts is an absence of sufficient segmental or line data from corporations—an absence that is said to influence the analysts' professional judgments.

[5]Stevenson, 1980, page 5.

[6]"Companies Feel Underrated by the Street." *Business Week*, February 20, 1984, p. 14.

Disclosure and Stock Prices: The Investor-Relations View

While security analysts respond negatively to any trend that reduces the amount of information corporations have to disclose—for example, information regarding executive compensation in proxy statements, registration statements accompanying securities issued under the "shelf registration" rule, and so forth—most investor-relations personnel are not worried that a decrease in disclosure will adversely affect the value of their company's securities.

Among the explanations offered by investor-relations respondents for this position are: (1) Evaluations take into consideration the position of the firm relative to other firms in the same industry, and since those other firms are also reducing their disclosure, no one firm's securities will be adversely affected. (2) "Since we have always provided more disclosure than required, these new requirements will probably not have an impact on the price of our stock." (3) "Adequate disclosure will be made, required or not"; and "We will disclose anyway, it is the right thing to do." (4) "Most of the information no longer required has had nothing to do with the investment process."

For a presentation of corporate views on all fields of regulation, see James Greene, *Regulatory Problems and Regulatory Reform: The Perceptions of Business*. The Conference Board, Report No. 769, 1980.

The contrast in perception and attitude can be striking. While almost 90 percent of the 402 corporate investor-relations executives surveyed felt that the reduced level of required disclosure, resulting from the deregulatory policies of the present Administration, will have no effect on the price of their firms' securities; more than three-quarters of the securities analysts surveyed were "concerned" about this same reduced level (a third were "very concerned"). Many stressed that there is indeed a correlation between reduced information available to them and a lower value accorded the securities. "If you have two companies in the same industry," explained one analyst, "and one files all the information, and the other files less information, you are going to have a reaction. I am not saying you will be biased, but it is human nature to be irritated if you are deprived of what you need." Another respondent commented: "More and more analysts will shy away from these companies. I do it myself. After all, who needs this?" While not all analysts agreed that security prices would decline, the majority expressed displeasure over any reduction in disclosure.

As another example of disparity in attitude between corporations and the investment community, three-quarters of the investor-relations executives surveyed said they would like to be able to communicate with their actual or "beneficial" shareholders; most cited "good management practice" as the main reason. But among registered representatives, the people who retain the names of those shareholders, concern for such communication was almost completely lacking. Almost none of the registered representatives answered the question of whether or not they made the names of their clients (the shareholders) available to the corporations. Forty percent did not know whether the brokerage firms they worked for re-

ceived such requests in the first place. When informed that new SEC rules will require them to release the names of the shareholders by January 1, 1985, the general response was one of limited interest. Over a third of the representatives said the new rule would have no effect on their work; another third said they were not sure what effect, if any, the ruling would have. One out of seven said it would hinder their work.

In light of this relative lack of concern among brokers for the communications problems of corporations whose stock they sell, it is not surprising that more than 40 percent of the corporate officials who responded to the question said that they "rarely" or "never" requested the names of their shareholders from brokers and dealers. The reason? Most felt that their requests simply would not be honored.

To be sure, 50 years of disclosure regulation have enabled the various participants in the process to coordinate activities in recognition of their mutual interdependence. Thus there is, in general, as much cooperation as discord. Most of the analysts surveyed do express satisfaction with the type and amount of information they receive from corporations, even as they would like to see some changes. Similarly, most of the investor-relations executives (IR's) and registered representatives say they are basically satisfied with the way the Securities and Exchange Commission enforces the disclosure laws.

But while the process has been relatively stable, new winds are blowing that promise to roil the waters. Rapidly accelerating developments in two areas—high technology and deregulation—are creating new obstacles and new options. Often these developments clash head-on: While deregulation, for example, permits less disclosure, the new financial functions allowed by deregulation (for instance, brokerage services provided by banks), as well as the increasing availability of sophisticated, data-hungry technology, makes more disclosure imperative.

How the new technology and the current forms of deregulation affect participants in the disclosure-access process is the subject of this study. Although it covers the major technological equipment used by the respondents, and the key deregulatory initiatives affecting them, the report is by no means exhaustive. This is perhaps inevitable, as both the new technology and current deregulatory policies are themselves evolving. (In some cases, paradoxically, they may even be reversing themselves, as pressures are exerted for additional regulation by interests normally favoring less government oversight.)

Futurists have described the technological era as an age of information. To the extent that they are correct, the transmission and use of that information—the disclosure-access process—takes on ever-increasing importance to individual companies, to the economy, and to the society as a whole.[7] As such, disclosure—or "publicity" as Justice Brandeis said—will be recognized as far more than a "remedy for social and industrial diseases." It will be seen, if it is not already so accepted, as integral to the very functioning of business and social life.

Technology

On March 22, 1984, the Securities and Exchange Commission asked corporations a series of questions. One of them was: "Do you prefer that communications be asynchronous or synchronous?" And "half duplex or full duplex?" Another question asked which "character sets" they used, such as ASCII, ASCII-2, or "other." In terms of "line speed," the Commission was very interested in knowing not only the highest the corporations now utilize for filing transmissions, but the highest they desire for logon and signoff. And when it came to graphics, the SEC queried the corporations on how they would "signify the beginning, end, scan density and compression."[8]

It was not too long ago that questions like these could only be answered, let alone formulated, by a relatively small group of engineers, systems analysts, and computer programmers. That they are now a normal part of the discourse among government agencies, corporate officials, and the financial community is an indication of how widespread the use of recently esoteric technology has become. Indeed, the rapidity with which computers, word processors, and their relatives are becoming ubiquitous in the business world makes almost any attempt to quantify their use outdated as soon as the measurements are taken. Three or more years ago, for example, only about one-third each of the security analysts and registered representatives surveyed used some form of computerized equipment—either a personal computer, a videotex system, a revamped or multifunction quote terminal, a terminal connected to a large mainframe, or a word processor. Two years ago, according to the respondents, the number of users jumped about 17 percent for both professions. Last year about another fifth of both groups entered the high-tech world, and as of this writing, 95 and 96 percent, respectively, of analysts and brokerage workers are at home with such machines. The situation for investor-relations executives is equally dramatic. Today, 75 percent of the IR respondents use some form of high-technological equipment in their daily work (and about half of the remainder plan to do so within the next two years). Three years ago the number of users was under 3 percent; two years ago a quarter of those responding used it; last year another 40 percent became involved.

Specific details on who uses what equipment appear on page 10. For the moment, the significant fact is that all three

[7]For an exploration of regulatory issues affected by technology managers who transmit corporate and financial data internationally, see James Basche, *Regulating International Data Transmission: The Impact on Managing International Business.* The Conference Board, Report 852, 1984.

[8]Securities and Exchange Commission, "Filing, Processing and Information Dissemination System." Release Nos. 33-6519; 34-20785; File No. S-7-12-84.

groups of business professionals in this survey—analysts, brokers and investor-relations executives—are now overwhelmingly operating relatively new technology for the purpose of disclosing and obtaining ("accessing") corporate information. This development is not lost on the Securities and Exchange Commission, the regulatory agency that oversees this function. In fact, the primary reason the SEC was asking those jargon-filled questions is to prepare for the introduction of a completely revamped system of corporate and financial disclosure: a system to be known as EDGAR.

Edgar: The Electronic Library

Recently, corporate volunteers were sought by the SEC to participate in a pilot electronic-disclosure system that "will permit corporations to make their required filings electronically and allow investors, securities analysts and the public to instantly access such information on home and business computer screens," according to the SEC questionnaire. The reason for establishing EDGAR—which stands for Electronic Data Gathering—is that the existing paper-disclosure system, in use for half a century, is proving inadequate to meet the needs of today's investing public. The SEC "has recognized for some time that the potential use of the information contained in corporate filings has not been fully realized by analysts or investors," the Commission stated. "With the adoption of the integrated disclosure system [which combines the filings required under the two disclosure acts], a new data base framework for filed information has been created. The Commission is committed to providing the public with convenient and immediate access to this data base."[9]

Anyone familiar with the existing system for retrieving corporate or shareholder information from the SEC's filings is aware of the time-consuming methods involved. There are microfiche screens on long tables in the Commission's public access rooms (in Washington, D.C., and in the regional offices) at which users transpose the data they seek by hand. Above the sound of the scratching pens can be heard the steady clang of coins being inserted into the nearby photocopying machines, while harried clerks rush back and forth to retrieve the particular files sought by analysts and other members of the public.

The amount of time and effort consumed by this method can make even the most avid information gatherer weary of the process. Furthermore, as the SEC has only nine regional and six branch offices around the country, access to the documents becomes difficult for anyone not living near a major city. While some data have been offered "on line" (that is, accessible to computers) and by mail subscription for several years, the cost is high, particularly for the small, independent investor. What the EDGAR system represents is a complete overhaul of the present process.

Planning for this computerized registration-disclosure system—a system estimated to cost about $50 million over a five-year period[9]—was hinted at almost two years ago. In an address delivered to the American Bar Association, Lee B. Spencer, Jr., director of the SEC's division of corporation finance, noted that the "microcomputer now makes it possible for security analysts, sitting at their desks, to have instant access to prodigious amounts of information about a company. Moreover, the software is now available to massage that data using a variety of assumptions. For example, one of several databases makes available a minimum of 900 pieces of information about each of 6,000 companies. With the push of a button, a securities analyst can generate an almost infinite number of ratios and other data with regard to these companies. At no stage of this process is it necessary for the analyst to look at hard copy annual reports or prospectuses."[10] (Development of financial ratios, incidentally, is the primary purpose for which most of the analysts surveyed use their computer equipment.[11]) See Table 1.

Spencer noted that the very development of improved computer capabilities has already influenced the way the SEC enforces the disclosure laws. The increasing accessibility of market information, resulting from the combination of computers, "an extensive network of aggressive research analysts," and the "strengthened disclosure scheme which grew out of the 1964 amendments to the Exchange Act," have enabled the SEC to require less "hard copy" or paper information through the use of short-form prospectuses.[12] In fact,

Proxy Implications of EDGAR

An electronic filing and registration system could have significant implications for proxy dissemination. According to SEC Commissioner Lee B. Spencer, corporations might find the problem of getting proxy information to shareholders long enough in advance to secure adequate voting simplified. "Once the information required in a proxy statement is inputted into a computer system the issuer could notify by electronic mail the owners of stock that a vote was upcoming. These stockholders or their nominees could access the information in their personal computers and then by computer message indicate the appropriate vote."

[9]Kenneth Fogash, SEC Deputy Executive Director, in remarks before the American Society of Corporate Secretaries, February 29, 1984. Cited in *Daily Report for Executives.* March 15, 1984, page A-1.

[10]Lee B. Spencer, Jr., "The Electronic Library." remarks before the American Bar Association's Federal Regulation of Securities Committee, November 9, 1982 (Available from SEC, Washington, D.C.)

[11]For a detailed discussion of financial ratios as a management tool, see Francis J. Walsh, Jr., *Measuring Business Performance.* The Conference Board, Research Bulletin No. 153, 1984.

[12]The 1974 amendments basically extended provisions of the disclosure laws to many companies that were not listed on the national securities exchanges.

Table 1: How Security Analysts Use Technology

Use Computer to Obtain Information on	*Percent of Respondents*[1]
Financial ratios	61%
Forecasts of company earnings and sales	49
Credit ratings and other credit issues	19
Conditions within the industry	15
Domestic economic and social conditions	14
International economic and social conditions	11
Dividend policy	11
Management strategy (e.g., capital investment plans)	9
Accounting policy	7
Government regulation	5
Labor relations	5
Management philosophy	5
Other (security quotes, security holder information, portfolio analysis, rate-of-return projections)	21

[1]Multiple responses.

he predicted the eventual elimination of paper reports and paper prospectuses. Because the information transmitted electronically would be instantly available to analysts, market functioning would be enhanced—or at least speeded up—at a lower cost to both the government and the market.

Because EDGAR is still only a pilot project that the SEC is preparing for, most investor-relations executives and security analysts do not yet know whether they will cooperate with the service. Two-thirds of the surveyed IR officials responded "not sure" to the question of whether they will connect to the new electronic system, and almost a fifth indicated they would not participate. Similarly, 6 out of 10 analysts indicated that they were not sure whether they would use the system; another 10 percent said they would not. When asked how they thought the electronic system would affect their work, over a third of the analysts did not know, and only a quarter indicated that they would find the system "substantially" beneficial.

Such hesitancy may be explained by the fact that the technology is still new, and that, while almost all the analysts and brokers are using it, not everyone is finding it indispensable. Even with the computer, a substantial 40 percent of the analysts still cannot get information that was previously unavailable. Furthermore, for most of the analysts (61 percent), the most important type of corporate-released information has nothing at all to do with technological equipment; they value "private meetings with key executives" more than any other source. While shareholder and 10-K annual reports are also highly valued, the written data were less often rated as being "very important" by the analysts than were the personal meetings. And some forms of technology, notably video discs and tape recordings, have almost no importance for this group of respondents. (See Table 2.)

Technology and Investment Advisers

When the pilot electronic library becomes a full-fledged system, the corporate and financial data will be available not only to issuers and the financial community, but to the general public as well. Indeed, the increasing popularity and availability of home computers will enable almost any investor—and eventually almost every investor—to obtain such information, thus becoming his or her own disclosure expert. What will this mean for analysts and brokers? Will their jobs even be necessary? Will their functions go out of existence, given the ease with which complex financial ratios and evaluations of various company securities can be performed?

These are not idle questions. Early press reports, as well as conversations the author has had with several people in leading brokerage houses, indicated a considerable fear, at least among the representatives, concerning the potential impact of the new technology. During interviews, some brokers went so far as to oppose providing customers with research information via a videotex (telephone-TV hookup) system, for fear that customers would use that data to make their own decisions, and then purchase or sell securities through a discount broker. According to an article in *The New York Times,* officials of the leading Wall Street firm

Table 2: Analysts' Rating of Corporate-Released Information (75 Respondents)

	Percent Rating		
Type of Information	*Very Important*	*Important*	*Slightly or Not Important*
Private meetings with key executives	65	25	8
10-K reports	56	32	11
Annual shareholder reports	54	41	6
10-Q reports	38	40	22
Company tours	27	27	46
Proxy statements	25	36	39
1933 Securities Act registration statement	25	30	53
Management presentation to analyst society members	18	41	41
Reports of company insiders	18	19	63
Company press releases	12	37	51
Video discs and tape recordings of annual meetings	—	3	97
Phone calls into annual meetings	—	2	98

How Computers Affect the Broker's Work

For some registered representatives, one of the most frustrating things about the computer is that it demands attention. Asked how their job function has been altered, a few representatives responded that they now spend more time trying to understand the computer than they do dealing with their customers or with other aspects of their job. Typical comments: "I spend too much time at the computer." "I'm trying to understand software application." "It takes time to show [coworkers] how to use the equipment and to do illustrations for other brokers."

For many, however, there are considerable improvements in their brokerage activity. Among typical responses were: the ability to work four to five times as fast; to do more intensive asset tracking; to obtain more client updates; to provide faster client service; to plan more "what ifs," (that is, to devise alternative investment strategies); and to undertake more complex functions such as tax and financial planning.

The most common activity that brokers no longer do is manual calculations, according to questionnaire respondents.

that announced a new videotex service to customers conceded, at least at the start, that "broker opposition was a major concern."[13] And a registered representative who deals mainly in the convertible bond area at another major brokerage house in New York stated in an interview with the author that most older representatives of his acquaintance—those who had not been exposed to computers and related technology in school—were worried about the eventual loss of their jobs. "In the next four or five years, the traditional role of the broker will be eliminated," he said. He added that the broker's function would evolve from advising, buying and selling to monitoring, evaluating and devising more creative alternatives for clients. Older representatives, he implied, would not be comfortable either with the change in responsibility or with the new equipment.

The findings in the present survey are mixed. On the one hand, passage of time seems to have allayed much of the concern about the loss, or significant transformation, of the representatives' jobs resulting from the new technology. Three-quarters of the respondents did not think their jobs would become obsolete through the application of the computer to their functions. And over half (56 percent) were not concerned that they would lose business—that their clients would simply use the research data newly available to them and then go to a discount broker to conduct a market transaction.

On the other hand, a third were indeed concerned that individual investors might someday be able to buy and sell securities without going through a broker. Such an eventuality would require either a change in the 1934 Securities and Exchange Act, or the registration of thousands of individuals as dealers, but even without such a change, a third of the representatives chose to agree with the comment that "computer technology will encourage investors to make more of their own decisions and rely less on brokers."

On balance, however, worry about technology is not too widespread among representatives. Perhaps one explanation can be be found in the response to yet another question. Representatives were asked if their jobs, in fact, had become more or less complex during the past five years. Overwhelmingly (85 percent) the response was "more complex." The main reason for this judgment, according to three-quarters of the respondents, was the new types of securities that have been introduced on the market—such items as options on indexes and subindexes, futures, and so forth. The second most frequently cited factor accounting for the increasing complexity of the broker's job, was "computers and other new technology"—about 39 percent referred to this. Legal and regulatory developments were also cited as important by a third of the respondents. Thus, at least among most brokers, early fears of what the computer would do to their livelihood have given way to confidence that their jobs are now even more necessary.

Some representatives, in fact, see client access to "broker's" data in an especially positive light. "The informed customer is the best customer," one respondent noted. Another commented: "The computer saves time in giving quotes and information. Greater customer education and information could provide significant public pressure to increase professionalism in the brokerage industry." And a third felt that the access to market data gave his customers "a better understanding of my recommendations."

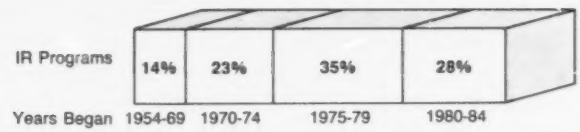
Security analysts, too, are not worried about computers making their jobs less important. Asked how they felt about clients using new technological equipment to do their own analysis of corporate securities, nearly nine out of ten analysts replied that they were "not at all concerned." Almost none feared that their own professional function in the marketplace would become less necessary. The reason for this optimism is a belief in the value of analytical skill and intellect, subjective factors that so far have not been duplicated by machines. "Experience and training as a security analyst will provide an edge," was a typical explanation. Another noted that the "computer is still a tool—the analyst must still make the decision based on information presented." A third felt that clients, for the most part, would not want to do the analysis: "It takes a lot of work, of the dry type that most people do not like or actively avoid." And a fourth placed the computer revolution in a human perspective: "You can't put management on a computer," he said. "Data are often unreliable and subject to revision."

Notwithstanding this conviction, half of the analysts feel that their jobs will change "significantly" as a result of technological innovations. The change will be in two separate directions: on the one hand, more sophisticated; on the other, less time consuming. The greater sophistication will result from the fact that the increasing availability of data allows for "more penetrating analysis and question-

[13] "E.F. Hutton to Start a Videotex Service." *The New York Times*, June 3, 1983.

Chart 1: Start of Investor-Relations Programs

(228 Companies)



ing," according to one respondent. Another respondent noted: "Breadth of company coverage per analyst will increase." Most felt that the decreased amount of paperwork required will save time.

Technology and Investor Relations

When EDGAR comes into being, it will have had a distinguished ancestry, dating back at least as far as the mid-1940's when its great grandparent, the 30-ton ENIAC (Electronic Numerical Integrator and Calculator) was born. Since then, developments in the compilation and processing of information—from hand-held caluculators to personal computers—have been so profound and enormous as to merit the oft-applied term "revolutionary." Immense innovations in the transmission of data have also occurred. Interactive video, cable television, satellites, photonics (a system that uses light beams, rather than hard copper wires) are today taking their place alongside printed materials and telephones as the means by which we send and receive information.

So vast is the impact of the new technology on society that some observers consider information itself to be a separate economic sector. According to the Congressional Office of Technology Assessment, the information sector, "if defined broadly, already accounts for over 60 percent of the economic activity of the United States." Business, furthermore, is "beginning to treat information as a factor of production that takes its place alongside the conventional factors of land, labor and capital."[14] (See box on page 10 for other factors in the growth of the investor-relations function.)

Disclosure of, and access to, information, then, is emerging today as a *central* economic function, both for the larger economy and for individual businesses—an undeniable consequence of the technological revolution. IR respondents to the survey indicate that two-thirds of the corporate investor-relations programs were formally established only within the last nine years—35 percent in the latter half of the 1970's and another 28 percent in the four years leading to the present. (See Chart 1.) Prior to the 1970's, most of the activities pertaining to disclosure were handled as a part-time activity of the following: the chief financial officer (37 percent of those responding to this question); the treasurer (18 percent), or the CEO (16 percent).

It is a measure of the current importance of information disclosure that investor relations continues to be a responsibility of those three executive departments, *along with* the investor-relations department itself. The survey revealed that chief financial officers retain primary responsibility for investor relations, either by themselves or in conjunction with another executive in almost two out of five firms responding. Primary responsibility in another 16 percent of the companies rests with the CEO. Over a third of the responding corporations have established a separate investor-relations department. (See Table 3).

Perhaps a clearer depiction of the significance of the disclosure function in U.S. corporations is found in the organizational status of the function within the responding firms. Half of the top investor-relations officials now report directly to the Chief Executive Officer; another quarter report to the Chief Financial Officer.[15]

Newly articulated management principles, furthermore, would seem to strengthen the significance of investor relations. In particular, the notion that corporate asset management should have, as its fundamental purpose, strategies to "increase the wealth of the shareholders in a manner that is consistent with the corporation's responsibilities to its other

Technology and Productivity

Almost two-thirds of the registered representatives said that computer technology had increased their productivity—measured by sales increments—but the gain was modest in size. For example, of those crediting the computer for added productivity, less than one in five said their productivity had reached a 50% improvement level. Another fifth reported increases of less than 50%. Gains of 100% or more were cited by only one in seven.

While measurement of productivity in the investor relations function is difficult if not impossible, a little more than half the investor relations practitioners surveyed felt that their productivity had in fact increased as a result of using new technological equipment

Table 3: Who Handles Investor Relations?

Primary Responsibility	*Percent*[1]
Chief Financial Officer	38%
Investor Relations Dept.	36
Chief Executive Officer	16
Corporate Secretary	15
Corporate Communications	13
All other (e.g., marketing, treasurer, public relations, counsel, etc.)	53

[1]Figures do not total 100% because, in at least a third of the firms, more than one executive or department shares primary responsibility.

[14]U.S. Congress Office of Technology Assessment, *Information Technology and its Impact on American Education: Summary.* Washington, D.C.: September, 1982, page 11.

[15]Developments in various aspects of corporate financial management are discussed in Patrick J. Davey, *New Patterns in Organizing for Financial Management.* The Conference Board, Report 839, 1983.

Why the Investor-Relations Function Has Grown

The technological revolution, which has transformed information itself into a basic economic category, according to the Office of Technology Assessment, is one of the primary factors accounting for the growth of the investor-relations function.[1] Other factors, described in interviews and in recent literature, include:

(1) Realignment of Wall Street firms during the 1970's, which resulted in the dismissal of analysts available to follow corporations—and hence, increased corporate activity to gain attention;

(2) Increase in disclosure requirements enacted during the 1970's;

(3) Corporate mergers, making the "mission" of the hybrid companies difficult for analysts as well as the public to comprehend;

(4) Growth of the number and size of institutional investors;

(5) Competition for the individual investor's dollars vis-a-vis commodities, real estate, insurance, art and antiques;

(6) Competition with government borrowing.

[1]For a comprehensive treatment of the investor relations function, see Phyllis McGrath, *Communicating With Professional Investors*. The Conference Board, Report No. 644, 1974.

shareholders (employees, customers, suppliers, etc.). . . .The objective is *shareholder wealth maximization*. . . .[16]

This principle coincides with the finding in the survey that investor-relations executives consider their most important function to be "increasing the value of shareholders' equity." Almost half of the respondents cited this issue as number one, considerably more than indicated other functions—even closely related ones, such as attracting potential investors and increasing analyst interest in their firms. (See Table 4.)

Analysts' interest is, of course, important, but the aim is not necessarily to increase such attention. It is, rather, to ensure that those analysts who do follow the company have the type of data needed to make "fair" evaulations. Thus, almost one of every five IR executives spends up to 50 percent of his or her working day making presentations to security analysts—apart from the time spent at official analyst society meetings. (It is not surprising, then, that 87 percent of the analysts surveyed expressed satisfaction with the type and amount of corporate-released information they receive, even while they are uneasy about the trend towards decreasing disclosure under deregulation.) The only other activity that takes up so much of the IR practitioners' time is an intracorporate one: communicating with departments and executives within their own firms. This may be attributed to the fact that most IR executives report directly to top management.

Table 4: Purposes of Investor Relations (Ratings by 402 IR Respondents)

Purpose	*Most Important*	*Second Most Important*
Increasing value of shareholders' equity	47%	17%
Increasing analysts' interest in company	17	31
Attracting potential investors	16	34
Improving shareholder communications	8	2
Meeting regulatory requirements	7	4
Increasing shareholder loyalty to management	4	6
Preventing takeover attempts	0.5	0.5

[16]Allen H. Seed, III, "New Approaches to Asset Management: Part I," *Intercontinental Advanced Management Report*. Vol. 4, No. 7, page 1.

It is rare for any other single IR responsibility to account for more than 25 percent of the practitioners' time, according to the survey. Such activities include preparation of annual and quarterly reports; preparation of other printed materials, such as financial press releases; attendance at shareholder meetings; communicating with the SEC and other rule-making bodies; and generally attempting to improve the flow of communication to shareholders. (See Exhibits 1 and 2.)

Use of the Equipment

The proliferation of personal or mini-computers by the end of the 1970's gave rise to the view that the written word was facing extinction. That dire prediction has not yet materialized. In fact, a whole new field of publishing has emerged: At last count, there were 123 magazines devoted to computers alone, according to Standard Rate and Data Service, as well as a veritable library of books and newspaper columns devoted to the subject.

Writing has not only survived the technological revolution, it has made widespread use of it. As most investor-relations executives tend to be writers (or to have writers on their staffs), it would follow that the type of technology most often used by the practitioners are word processors, best described as computerized typewriters. Over 57 percent of the IR respondents use word processors, either alone or in conjunction with other equipment, on the job, and 83 percent use whatever other electronic equipment they have for their written work. Fewer than a third use personal computers.

On the other side of the disclosure process—the receiving or access side— the situation is reversed. Two-thirds of the analysts and three-quarters of the brokers or registered representatives use personal computers, while less than a third in both cases use word processors. And if the investor-relations people use electronic equipment primarily for writing, the financial professionals use it primarily for numerical analytic purposes. Following is a more detailed breakdown of the uses to which the participants in the disclosure process apply their new technology:

Exhibit 1: Director of Investor Relations' Duties in a Motor Vehicles and Equipment Corporation

Functions and Responsibilities
Corporate Organization

SUMMARY

The Director of Investor Relations, reporting to the Vice President and Treasurer, plans and conducts a program of two-way communication with and service to professional investors to foster their accurate assessment of the corporation from an investor's perspective.

SPECIFIC RESPONSIBILITIES

(1) Serve as the central planning, contact and coordination point between the corporation and the professional investment community, particularly as to analysts' visits, investment-group presentations, and information for investment firms.

(2) Maintain close liaison with corporate communications and legal departments with respect to the communication of company operations and financial matters.

(3) Develop channels within the investment community for learning what reports, comments and rumors concerning the company may be circulating and see that appropriate management officials, including the Vice President-Secretary and Assistant General Counsel, are notified.

(4) Advise on the timing, development and content of financial news releases, shareholder reports, and other publications of investment interest.

(5) Monitor and report to management on significant changes in ownership of the company's securities by types of owners, size of holdings, and geographical spread.

(6) Record and report to management on the price and volume trends for securities of the company and competitor companies and chronicle the factors causing significant changes therein.

(7) Cultivate personal acquaintanceships with key personnel of professional investment firms and individuals and develop specialized knowledge of the overall composition and mechanics of the investment world.

(8) Distribute to management reports by financial analysts on the company and the industry, reflecting opinions and attitudes concerning investments in same, and maintain files of these data.

(9) Assist in planning and make physical arrangements for shareholder meetings and assist in other shareholder matters as required.

(10) Respond to or coordinate responses to communications from shareholders.

(11) Establish and provide for the mailing of financial reports and supplemental data to financial analysts and portfolio managers in the United States and abroad.

• Among registered representatives, about one out of eight uses a computer or related equipment for portfolio analysis, keeping themselves abreast of such factors as their clients' tax brackets, capital gains and losses, pension and insurance plans, and so on.

• One out of ten brokers uses it for devising technical analyses of various securities—manipulating opening and closing stock prices, volume of shares traded, price/earnings and other types of ratios, bond calculations, options strategies, and so forth.

• One out of 20 registered representatives uses the computer for what may be called "housekeeping" operations—keeping daily calendars, making automatic phone calls, conducting correspondence, and the like.

• A similarly small proportion use their electronic equipment for "other" functions, such as general financial planning, income-tax preparation, accessing and managing a data base, and word processing.

• Just under half of the representatives, like the security analysts, use their equipment for more than one purpose.

Among the analysts, the equipment is used for obtaining information in two primary areas: financial ratios (61 percent) and forecasts of corporate earnings and sales (50 percent).[17]

Investor-relations executives use their electronic equipment overwhelmingly (83 percent) for writing: 46 percent for all the required annual, quarterly and interim reports, and 37 percent for other types of writing, including press releases, newsletters, and so forth. However, almost half also use computers for compiling and storing data, or for preparing internal files, and a quarter have found it useful to access external data bases. A little over a third employ more than one type of equipment.

What Is Not Being Used?

To some observers, the technological revolution consists primarily of the widespread use of computers, but it actually encompasses a cross section of very different technologies—video, satellites and photonics, for example. While all of these areas are basic to the transmission of information, and in turn

[17]For a fuller treatment of this factor, see Francis A. Lees, *Public Disclosure of Corporate Earnings Forecasts*. The Conference Board, Report No. 804, 1981.

Exhibit 2: Job Description—Investor Relations Manager in an Engine Bearing Corporation

SALARIED JOB DESCRIPTION

Division: Corporate Staff
Job Title: Investor Relations Manager
Department: Finance—Corporate
Reports To: Vice President & CEO

FUNCTIONAL DUTIES AND RESPONSIBILITIES:

General Function

Under general supervision develops an effective investor communications program including written material, meetings, and the like for various investor groups including shareholders, financial analysts, etc.

Duties & Responsibilities

(1) Assist in the arrangements for and conduct of group meetings with financial analysts and brokers, both at headquarters and in key financial centers. This work would be done in cooperation with the Vice President-Finance and Administration, and the Corporate Communications Department.

(2) Establish and attend meetings with individual analysts and brokerage officials in key financial centers for the purpose of alerting those individuals to the company's prospects.

(3) Follow-up communication with analysts and brokers to keep them abreast of important company developments.

(4) Handle inquiries from members of the financial community.

(5) Handle inquiries from shareholders as directed.

(6) Assist in the development of corporate annual and interim financial reports as well as other publications associated with the investor-relations function (fact brochures, special reports on new product areas, material tailored specifically for brokers, etc.)

(7) Assist in the arrangements for the corporate annual meeting.

(8) Develop communications materials directed to existing shareholders, including employee shareholders, for the purpose of retaining their loyalties.

(9) In cooperation with the Vice President, Corporate Affairs and Secretary, assist in conduct of the company's economic education programs and prepare communications on public issues that are of vital interest to the company.

to the disclosure-access process, not all of them have been widely accepted. Some innovations in the video field, for instance, have not been implemented as rapidly as had been predicted.

Video does not seem likely, at present, to replace the two primary sources of corporate disclosure—in-person contact with management and written reports. Virtually none of the 402 investor-relations executives provide video discs or tapes to enable their shareholders and security analysts to view annual meetings, press conferences, or corporate interviews, even though such technology is readily available.[18] Furthermore, three-quarters of the respondents indicated that they have no plans to use such items within the next two years. Similarly, none of the corporations in this sample offers special telephone systems to enable at-home shareholders to plug into annual meetings, nor do they plan to.

Videotex systems, too, are not significantly utilized in the disclosure process, in spite of their reported low cost and ease of use.

[18] "Audio and Video Methods to Communicate Rising," *Investor Relations Update*. March 1983, page 6.

Technological Disclosure Services

"Transforming data into information" is the way one publisher of computerized financial directories describes the service his firm provides. It is an apt description of the host of new services and products that have emerged during the past few years to exploit the "disclosure market." What the services have in common is that they provide vast amounts of information, at high speed, in compact form, and to an ever-increasing audience. Some of the services are offered by

Ownership of Equipment

Registered representatives are more likely than are security analysts or investor relations personnel to own their own personal computers and word processors.

Equipment is	Registered Representatives	Security Analysts	Investor Relations
Personally owned	58%	9%	6%
Provided by firm	53	73	87

Videotex

Videotex is not a separate technology, but a synthesis of existing technologies in the telephone, television and microcomputer fields. It is supposed to enable people with virtually no experience in computers to secure, on their home television sets, vast amounts of information and extensive graphics, as well as to interact with the screen—making bank deposits, ordering and paying for merchandise, writing letters (utilizing electronic mail), etc. Not even a keyboard is required as videotex systems provide users with a numeric keypad that looks like a channel selector. The system is also flexible, able to transmit via cable, satellite, and photonically as well as electronically. And, of course, it can connect to distant computers and data bases.

According to one expert, "The factors of low cost and ease of use have already proved to be crucial elements in the growth of the personal computer market. It will be interesting to see how these same two factors affect the growth of videotex."[1] Nevertheless, the explosion has not yet hit the investor relations departments of U.S. corporations, and has barely touched the brokerage houses of Wall Street. One possible explanation: Some experts consider videotex an interim technology, soon to be overtaken or merged into the personal computer field or the cable television industry.[2]

[1]Darby Miller, "Videotex: Science Fiction or Reality?" *Byte*, July 1983, page 56.

[2]Rich Malloy, "Commentary: Personal Computers and Videotex." *Byte*, July 1983, page 129.

traditional news organizations such as Reuters, Dow Jones, and United Press International; others by fledgling companies. Still other services are in the process of being developed by publicly held corporations, not for the market potential, but simply to improve their own access to information that they have difficulty acquiring by other means—in particular, information concerning their own shareholders.

At a recent investor-relations conference, an energy company executive distributed copies of a computer printout based on an in-house computer program that sought to discover the identities of its beneficial or actual shareholders. Utilizing its staff programmers, the company developed a software program to find out not only the institutions that owned the stock, but those that did not, the names of the institutional portfolio managers, the number of registered shares in each portfolio, and a good deal of related information. Benefits of such a program, according to the executive, included providing information to top management for use in anti-takeover fights, proxy solicitations, pinpointing speculative interest in their stock, and "general care and feeding of shareholders." However, the program was also described as "elaborate" and time consuming, and not necessarily appropriate for all corporations.

Only about ten percent of the investor-relations practitioners surveyed utilize similar programs to help them discover the names of their beneficial or actual shareholders, although three-quarters of the executives would like to have such information. One out of every five IR executives consider this type of data "very important," while over half consider it moderately important. (See box on page 17.)

Corporations that do not devise their own programs can subscribe to a number of services that provide similar information both in hard copy and electronically. Such services report a variety of characteristics about the institutions that hold a corporation's stock, as well as others that do not own it but that are worth considering, according to the subscribers' own criteria. These characteristics include geographic dispersion, how often institutions buy and sell shares ("longevity" and "volatility" indexes), and similar data. In effect, this type of disclosure service attempts to reverse the general relationship between corporations and institutional investors. Normally, those investors "acquire" corporations; with these services, corporations are in a better position to "acquire" the investors they prefer.

There are also services that broaden access to data formerly available mainly to brokers and institutional investors. Among the significant developments in this area are:

• *Up-to-the-minute stock quotes.* One service enables owners of a hand-held "digital broadcasting" device to unscramble quotes that are transmitted in garbled form over unused portions of FM radio bands. Another offers special codes to subscribers, who can then tap them out on a digital "tone" telephone, thereby "calling up" a robot that mechanically reads off the quotes—a system known as audiotex.[19]

Services such as these are provided not only by large communications firms and entrepreneurs, but by some brokerage houses as well. Early in 1983, for example, a major Wall Street firm began offering quotes on U.S. Treasury securities to owners of video screens connected to the Reuters network. The quotes were said to be previously "the exclusive domain of firms specializing in that market." A few months later, the nation's leading provider of financial electronic information offered a similar service. As noted by one financial reporter, while the availability of these data will not necessarily challenge the "three dozen securities firms and banks that dominate the Treasury market," it will affect the market by enabling small investors to shop around more prudently.[20]

• *Paperless or electronic sales of securities* offered by government agencies and brokerage houses. In early 1984, the state of Delaware announced plans to offer sales of municipal bonds electronically. This type of service demonstrates how new technology, in addition to increasing efficiency of the market, has a profound effect on the operation of the market itself. As a result of less paperwork because of electronic sales, municipal bonds are being marketed in denominations of $1,000 rather than the standard $5,000—thereby broadening the market to smaller in-

[19]"New Services are Providing Stock Quotes." Pamela Sebastian, *Wall Street Journal*, February 27, 1984.

[20]Michael Quint, "U.S. Securities: More Quotes. "*The New York Times*, June 3, 1982.

vestors. Several discount brokers, and at least one full-service broker, offer similar services for corporate securities, enabling clients to place their buy and sell orders at home. [21]

• *Financial research news.* One firm offers videotapes of major security analysts questioning senior corporate executives. Others offer investor-relations executives a wide array of financial and economic news—news of corporate competitors, merger developments, forecasts of the money supply, the effectiveness of their own press releases, analyst opinions, and so forth.

A New York brokerage firm offers clients the option of gaining immediate access to their own accounts without bothering their brokers. They may also obtain professional research information and advice on new investments.

The following section describes the impact of major deregulatory initiatives on the disclosure-access function.

* * * *

Deregulation

Efficiency in the securities markets is dependent on a full, effective information flow. Indeed, the theory of market efficiency itself holds that the purchase price of a security will reflect all the information available for all investors to make wise decisions. Stated another way, the widely accepted theory maintains that the market price for stocks, bonds and other securities embodies "what is knowable and relevant." The more widespread the knowledge, the more efficient, or "valid," the price. [22]

What the securities market as a whole requires for efficiency, however, is not always what individual corporate issuers of those securities require. In fact, the very term "efficiency" can mean something quite different to the market than to the corporation. To the market, it implies a method of functioning in which wares are bought and sold at their most appropriate value. For the corporation, it means a manner of operating that entails the least cost for the highest production. Since the process of providing or disclosing information entails an expense, corporate efficiency often warrants less disclosure, while market efficiency depends on more. This is the crux of a dispute centering on one of the most significant recent developments in the disclosure regulations: SEC Rule 415, or shelf registration.

Shelf Registration

Originally adopted by the SEC as an experiment in March, 1982, shelf registration enables corporations to sell new issues of stocks and bonds without constantly filing information-packed registration statements, as previously required. One statement will suffice, regardless of changes in the corporation's performance that would otherwise be taken into consideration by analysts (and, perhaps, would thereby affect the price of the corporation's securities). Under the rule, a corporation may choose to take its securities "off the shelf" for sale on a continuous or delayed basis, with no advance notice, for up to two years.

Even prior to making the shelf registration rule permanent on January 1, 1984 (as amended, the rule applies only to corporations whose outstanding capital stock has a market value of $100 million or more, plus an annual trading volume of 3 million shares), the SEC provoked a storm of controversy in the financial and business press. On the one hand were the investment bankers, smaller securities firms and at least one SEC Commissioner, who warned that the investment bankers who buy and resell the securities would not have time to examine a company's records and operations diligently—as is required under accepted interpretations of the Securities Act—prior to offering the securities for resale. [23]

Information about the corporate issuer which is already publicly available—such as is contained in 10Q reports—is not much help, they argued, because the data are often several weeks, or even months, old. They warned, too, that the absence of sufficient time to review relevant information, and put together a comprehensive distribution or underwriting syndicate, would make purchases more risky. The initial investment banker would seek to unload large blocks of the securities very quickly, and the only ones able to afford the larger blocks would be the institutional investors and giant brokers, thus squeezing out smaller brokerage firms and individual investors. While competition would initially increase because the brokers in the traditional underwriting syndicates would no longer be assured of their business, ultimately, market concentration would be the norm.

On the other hand were the corporations, particularly the firms' chief financial officers, pleased with the prospect of saving money on printing costs and labor; of enjoying greater issuing flexibility since they can choose either to use the rule or not as warranted by their evaluation of market conditions; and of having the "ability to pick and choose among a

[21] Karen Slater, "Buying Stocks at Home." *Wall Street Journal*, March 19, 1984.

[22] Charles D. Kuehner, CFA, "Efficient Markets and Random Walk." in Sumner N. Levine (ed), *Financial Analysts Handbook*. Homewood, 111: Dow Jones—Irwin, Inc., Vol. 1, 1975, page 1226.

[23] Sec. 11(a)(5), The Securities Act of 1933.

plethora of new financing ideas and techniques that have been largely inspired by the ferocious bidding among underwriters for 415 business."[24] As two financial consultants indicated in a *Wall Street Journal* column, prior to the adoption of shelf registration, a corporation's decision to raise equity capital was a burdensome, time-consuming process. The fixed costs of issuing equities often led management to design large, difficult-to-market issues. As a result, efficiency in financial planning was made more difficult.[25]

Such, at least, were the arguments as presented in the media. Now that the rule has been in effect for two years, how do the corporations and the security analysts line up?

According to the survey, fewer than one-third of the companies polled have made use of the shelf-registration rule, with the same number predicting that they would "sometimes" use it in the future. (Almost all of the surveyed firms are large corporations, and thus eligible to raise capital under both the initial and the amended rule.) More said they would never or rarely use it than said they would always use it; and almost half (44 percent) remained undecided about its usefulness.

Some of the comments from the analysts were angry. "We have to dig deeper and longer," one wrote. "Reducing required information is ridiculous and devastating." Others mirrored this view. "It just makes it harder to get the data," and "it eliminates a source of timely information on current operating results," were two typical comments. Referring to Rule 415 and related deregulatory developments, one analyst noted: "The prospectus was a great single-source document for information on a company. Now nearly everything in it is incorporated by reference to other documents."[26]

In spite of these sentiments, only about a quarter of the surveyed analysts felt that the rule actually hindered them in their work. More than a half (56 percent) said shelf registration had no effect—in some cases, because the analysts did not follow companies that used it, but more often because, faced with a decrease in one source of information, the analysts were forced to obtain what they needed elsewhere.

Asked to elaborate on his view of the effect of Rule 415, one analyst commented that the market "may show sluggishness" in terms of efficiency, and that "it will take the analyst longer to get the information." Ultimately, however, "analysts will make up for it by working harder." This was typical of the responses: The needed information will be found, somehow.

In one sense, this conviction may be a result of professional self-esteem, reinforcing the very high proportion of respondents who feel that the analyst's function will remain central to the proper operation of the securities markets, regardless of changes in legislation or in new technology.

Other Deregulatory Issues

While shelf registration represents the most significant reduction in recent disclosure requirements, other regulations contribute to the trend. As of December 31, 1983, for example, corporations have been allowed to decrease the amount of information they disclose concerning executive compensation in proxy statements. Previous rulings have allowed them to curtail information on subsidiary companies, and on PPE (property, plant and equipment). Again, while the corporations tend to approve the overall trend towards less disclosure—and the analysts tend to disapprove that trend—nearly two-thirds of the respondents in both groups indicate that these new deregulatory issues will *not* affect them in the performance of their basic jobs. Where there was disagreement was in the remaining third of each profession: The remaining IR respondents felt the new rules would help them; most of the remaining analysts said they would be hindered.

Initial reactions to the controversy over Rule 415 and related issues were, parodoxically, reminiscent of reactions to the very establishment of the SEC in the early 1930's. At the time, proposals for a monitoring and disclosure agency were greeted with cheers and howls, and dire predictions: "The Act is drastically deflationary in nature and may seriously retard economic recovery," wrote Arthur Dean, an attorney and forceful critic of the proposal. "It may result in unemployment because corporations may be forced to make drastic economies and to suspend the payment of dividends in order to obtain the necessary working capital. . . .It will be difficult to obtain money for new and speculative enterprises. . . .Only the largest houses which have competent statistical staffs capable of making the investigation required by the Act can afford to be underwriters. . . Independent directors will be chary about sitting on boards of directors and exposing themselves to the liability imposed by the Act. . . .It may force American corporations to go abroad for capital. . . .The number of 'strike suits,' that is suits brought for the purpose of legal blackmail, will be greatly increased. . . .With the purposes of the Act, i.e. the protection of the public against fraudulent securities, the writer is in full sympathy, but it seems hardly necessary to burn down the house to exterminate vermin."[27]

Establishment of the SEC neither set ablaze nor reduced to cinders the securities markets, although some investment

[24]Beth McGoldrick, "Life With Rule 415," *Institutional Investor*, February 1983, page 129. See also: Tim Carrington, "SEC Shelf Rule Proves a Boon to Big Brokers." *Wall Street Journal*, October 18, 1983; "Stock Issuers Warm up to Shelf Registration." *Business Week*, September 5, 1983, page 82; "Securities: SEC Agrees to Restrict Use of Shelf Registration Rule to Larges Companies." *Daily Executive Review*, November 10, 1983, page A .

[25]Bluford H. Putnam and G. Bennett Steward, "Investment Banking's Changing Face." *Wall Street Journal*, January 4, 1984.

[26]Under the integrated disclosure system, the SEC adopted new registration forms, effective May 24, 1982, that allow most corporations to eliminate documents formerly required, and simply refer to those documents. For a summary discussion of the regulations, see John S. Gillis, "Integrated Disclosure System." *Financial Analysts Journal*, May-June 1982, pp. 18-20, 79.

[27]Arthur Dean, "The Federal Securities Act: I" *Fortune*, August 1933, p. 106.

Not Enough Information—or Too Much?

Asked what type of information they want that they are not now receiving in sufficient amounts from corporations, over a quarter of the security analysts mentioned line or segment data, such as profits and sales figures on subsidiaries, product groups or lines. The percentage might actually be higher, as the other two types of responses were along the lines of "better quality of data" and "more data in general."

By contrast, here is how one of the corporations surveyed instructs its investor-relations director to deal with this same issue, as stipulated in an internal policy memo: "In general, all information concerning individual company profits, contract profits and rates, and financial forecasts data shall not be disclosed."

bankers refused to buy or sell securities under the new laws. More lastingly, the SEC altered significantly the way corporate issuers, investors and brokers interacted in the marketplace.

In the next few years, when the furor over Rule 415 dies down, there is likely to be a further alteration in this interaction, resulting in: more convenience to large corporations in their efforts to raise capital (a majority of analysts and IR practitioners questioned are convinced of this); added inconvenience to many security analysts who will be forced to search out from other sources the information they need; and furtherance of the trend toward market concentration in the hands of large brokers and institutions, with the consequent decline in activity of individual investors and smaller brokers.

Shareholder Communications

Shelf registration pertains to disclosure *by* corporations *to* the investment community. Because it limits such disclosure, it tends to be favored by the former and generally opposed by the latter. Conversely, as expected, legislation that requires the release of more such information is usually favored by investment or financial analysts and opposed by the corporations. Where disclosure flows in the opposite direction—from the investment community back to the corporation—positions are, understandably, reversed. Initiatives requiring the release of data concerning shareholders are strongly supported by the corporations, who argue that they should, as a matter of right, know the names of their true investors, rather than simply the name of the broker, bank or institution that conducted the investment transaction.

But many in the investment community take a dim view of having to disclose such information. The Securities Industry Association (SIA), a trade group representing over 500 securities firms in the United States and Canada, strongly opposed an impending SEC rule designed to facilitate communication between shareholders and corporations. The rule will require, as of January 1, 1985, the release of names held by the securities firms.[28] Implementing the rule, according to the SIA, would be a bad idea because: Costs would be too high for the broker-dealers; brokers already "forward timely proxy materials and annual reports to beneficial shareholders"; commercial bankers—who are increasingly emerging as competitors to brokers and investment bankers, but who are not governed by the SEC—will not be affected by such disclosure requirements, so that implementation of the rule will be unfair; and shareholders value their anonymity: Even if they consent to receive stipulated information from corporations, what guarantee is there that corporations will not "misuse" the privilege?[29]

Concern over the communication problems between corporations and their shareholders goes back to the early 1970's, as an increasing number of securities were being registered in the name of institutions, banks, broker-dealers, and other "nominees" rather than in the names of the people who actually purchased them. One difficulty of this development pertained to the distribution of proxy materials; since the actual security owners (known as beneficial shareholders) could not be reached, they could not receive proxy materials and, it was claimed, thus could not intelligently inform their brokers or other representatives how to cast their proxy votes at shareholder meetings. Various rules were adopted during the decade by the SEC to address this issue. One, for example, required that corporations consult with the intermediaries to determine how many packages of proxy materials were needed to be redistributed to the actual shareholders.[30] Another instructed broker-dealers to actually forward those materials in a timely manner.[31]

But the trends that caused the problem in the first place continued, namely, the growth of institutional investors; the brokerage practice of registering their clients' securities under a single "street" or "nominee" name (over half of the representatives surveyed use street name registration, mostly for reasons of convenience); and the establishment of depositories in which not only brokers but banks and other institutions register all their accounts in what has come to be called "piggy-backing." Thus, not only cannot corporations discover who their beneficial shareholders are, they often cannot discover who many of the nominee intermediaries are: Individuals are recorded with brokers, bankers and institutions; the latter two are recorded with money-center banks or depositories; they, in turn, are recorded with major depositories.

The practice of nominee registration and the use of depositories grew rapidly during the 1970's, and shows no sign of abating. By the start of 1984, broker-dealers alone registered over 18 billion shares with the Depository Trust

[28]Section 240. 14b-1, Securities Exchange Act of 1934.

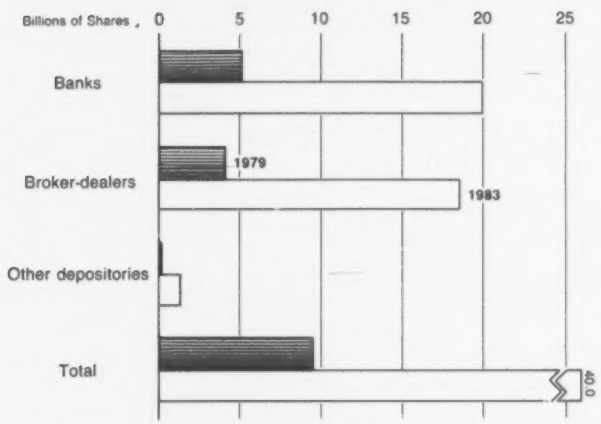
[29]See testimony of Securities Industry Association, March 9, 1983, re SEC file No. S7-954: "Facilitating Shareholder Communication."

[30]SEC Release No. 34-11079 (October 31, 1974) [39 FR 40766]

[31]SEC Release No. 34-13719 (July 5, 1977) [42 FR 35953]

Chart 2: Number of Shares Registered with the Depository Trust Company, 1979-1983

(from all sources)



Note: The total value of all shares on deposit by the end of 1983 was over 1.2 trillion dollars.

Source: The Depository Trust Company, various newsletters.

Company in New York City. That figure represents more than a *four-fold* increase over the shares represented just four years previous. Banks and other depositories also enormously increased their registration with the DTC, so that the full amount of shares on record in that one institution was $1.2 trillion. (See Chart 2.) If all the nation's investors were eventually so registered, all U.S. corporations would have, as of record, only a handful of shareholders.

In 1981, the SEC established an advisory committee to address the issue of corporate-shareholder communication; a report summarizing the recommendations was released in June, 1982.[32] As is its practice, the Commission then published proposed rules, and solicited comments prior to adopting final rules. According to the SEC, "Issuer commentators [i.e., corporations] who addressed the direct communication proposals almost unanimously favored their adoption in one form or another. Almost all banking and securities industry commentators, however, were opposed to ...ese proposals."[33]

The most significant rule change would enable corporations to cut through most of the layers of intermediaries separating them from their shareholders. It requires, as of January 1, 1985, that upon request—and upon assurance of reimbursement of expenses—brokers and dealers provide a corporation with a list of all the company's shareholders: their names, addresses and securities positions. Only those shareholders who formally object to having their names so disclosed will remain unidentified. Even then, brokers will be required to have available, in their records, an assertion that the shareholder actually refused to have his or her name released to the corporation.

Asked how they felt the new disclosure rule will affect them, almost two out of five representatives indicated that the rule was of no importance, that it would have no effect on their work. A third of the respondents were "not sure" what effect the rule would have, while only one in seven felt this added obligation would hinder them on the job. In other words, in spite of the almost universal official opposition within the financial community when the rule was proposed, a major segment of the respondents from that community, in fact, seems little concerned or unsure: Either they feel the rule will have no appreciable impact on their work—perhaps because of the ease with which mailing lists can be compiled and printed by computers—or they are not sure what the impact will be.

The reactions from the corporations were anything but ambivalent. Three-quarters of the investor-relations executives surveyed said they would, indeed, take advantage of the rule; of the quarter of respondents who said their companies would not avail themselves of the opportunity, one explanation offered was that enough shares are represented on the firm's existing board of directors to consititute a quorum, obviating any pressing need to contact all other individual shareholders. "Dissatisfaction out there among the shareholders who are not on our board doesn't really mean all that much to us in terms of securing a majority," said one IR respondent. "That may change over time, but right now we are over half-owned by a few individuals on the board."

Beneficial Shareholders: Management's Need to Know

The increasing use of street name registration, the growth of institutional investors, and the establishment of central depositories effectively hides the identities of beneficial, or actual, shareholders from corporate management. Investor-relations executives seek to know those identities for the following reasons:

Reason	Percent
Good management practice, in general	34%
Improves shareholder allegiance to present management through improved communications	19
Important to assess investment objectives of shareholders	11
Keeps corporation informed of potential takeover activity	10
Keeps company abreast of speculative interest in their stock	6

Beyond knowing the names and addresses of beneficial shareholders, investor relations officials would like to know how long stocks are held, the specific investment objectives of the shareholders, the names of decision makers within institutional investors, and a profile of the shareholders.

[32]Advisory Committee on Shareholder Communications, *Improving Communications Between Issuers and Beneficial Owners of Nominee Held Securities*. Washington, D.C.: U.S. Securities. and Exchange Commission, June 1982.

[33]SEC, "Facilitating Shareholder Communications Provisions." 17 CFR Part 240, (SEC Release Nos. 34-20021; 40-13408; SEC File No. S7-954) [48 Federal Register 35082]

Proxy Dissemination

Other changes adopted by the Securities and Exchange Commission, effective November, 1983, tightened, but did not alter, the proxy material distribution system earlier in effect. Issuers, for example, have to inquire of brokers and other intermediaries how many packets of proxy material are required 20 days in advance of the record date of the shareholders' meeting, instead of the previous 10 days. Also, broker-dealers have to respond to such an inquiry within seven business days of receiving the question, instead of merely "promptly" as earlier required. And they have to mail out the materials no later than five days after receiving it from the issuing corporations.

While most of the corporations surveyed will take advantage of the direct communication rule, only two-fifths feel that the related proxy rules will actually improve the proxy-dissemination process. Half of them assume it will have no effect. "It remains to be seen" and "It should improve it, but probably won't" were common skeptical responses, reflecting, perhaps, previous experience.

Respondents were also asked what additional methods, if any, would improve the proxy-solicitation process. Among the responses were: that brokers be required to mail the proxy materials even sooner—in three days instead of the newly mandated five; that they should be required, even without being asked, to automatically supply shareholder lists to the issuers; that the entire nominee-registration system should be eliminated; and that corporations should be allowed to mail proxy materials directly to the beneficial shareholders, rather than to the broker or other nominee.

Concerning this last suggestion, the SEC has issued no restriction on corporations mailing such materials to the shareholders, once the list is made available after January 1, 1985. In an interview, a staff attorney at the SEC informed The Conference Board, however, that corporations will still be required to use the existing distribution process: They will have to continue mailing materials to brokers and nominees. Any additional proxy mailings corporations desire to make are permissible, if they are willing to undertake the added printing and mailing cost.

Banks, Brokers and the SEC

The most frequent recommendation of the corporate IR respondents on improving the proxy process was that banks, as well as brokers, should be brought under the purview of the new rule. This suggestion goes to the heart of a long dispute involving the SEC, the various bank-regulatory bodies, and spokespersons for banks and brokers. At present, commercial banks are specifically excluded from the jurisdiction of the SEC because their business had been, until recently, very distinct from that of broker-dealers and investment bankers. Commercial banks advanced credit, while brokers sold securities—two functions specifically separated by the Banking Act of 1933, commonly referred to as Glass-Steagall after its sponsors.

Brokers' Views on Banks

When registered representatives were asked how they felt about "the fact that banks and S&L's are entering the securities brokerage business," the responses were: Concerned—60 percent; unconcerned—30 percent; and the remainder had no firm opinion.

"Congress believed that banks should be concerned primarily with commercial loans and the safety of deposits, so it clearly forbade them to engage in the securities business because of the risks and inherent conflicts," according to the chairman of the Securities Industry Association and a strong opponent of policies to permit brokerage activities among commercial banks. "In return, banks were given special privileges including Federal deposit insurance, a roughly 40 percent tax advantage over other businesses, favorable accounting rules and protected markets."[34]

But the separation of functions adhered to during the half century since passage of Glass-Steagall and the Securities Exchange Acts has been diluted considerably during the past two years. Deregulation of the multifaceted financial industry has led many to predict that most distinctions among banks, brokers, insurance companies, and other financial firms will blur to the point where only one type of institution will emerge: the financial services firm. In any event, the agencies that presently retain jurisdiction over commercial and savings banks and savings and loan associations have been supporting the right of those firms to engage in brokerage activities.

In August, 1983, the Federal Reserve Board allowed bank holding companies to offer their own brokerage activities, as well as to acquire discount brokerage services.[35] A few months prior to that decision, the Federal Deposit Insurance Corporation approved the same right for banks under its jurisdiction: "It is the opinion of the Legal Division of the FDIC, after reviewing the language of the statute, current case law interpreting the Glass-Steagall Act, and the Act's legislative history, that 'discount brokerage' is a permissible activity. . . .By the term discount brokerage we are referring to the practice by a bank of executing securities transactions solely at the direction of a bank customer but not providing that customer with any investment advice."[36]

Notwithstanding heated attacks on these deregulatory policies—a spokesperson for mutual fund firms characterized the FDIC position as a form of "statutory book burn-

[34]Robert E. Linton, "Banks, Brokers, Thrifts." *The New York Times,* August 18, 1983.

[35]Kenneth B. Noble, "Feds to Let Banks Serve as Discount Brokers." *The New York Times,* August 11, 1983.

[36]"General Counsel's Opinion No. 6—The Legality of Discount Brokerage Services When Offered by Insured Nonmember Banks." FDIC, in "Notices," *Federal Register,* Vol. 48, No. 100, May 23, 1983.

Full-Service Brokers, Discount Brokers. . .and In-Between?

Federal bank-regulatory agencies have ruled that commercial and savings banks may offer brokerage services so long as they remain discount brokers (that is, merely conduct buy-and-sell orders for customers). Full-brokerage services, which include investment opinions, are not yet considered acceptable by the agencies. But one brokerage service seems to have created a new niche for itself: somewhere in between the full service and discount areas. In its promotional material to banks, the firm defines itself as "a new, independent investment service. . .a registered broker/dealer, designed for S&L's, savings banks, and their customers. . .[The company] offers portfolio evaluations and recommendations, investment strategy planning and research services. . .Although [our] commission rates are competitively priced and lower than most national and regional brokerage houses, [the company] is not a discount broker. . .[our] registered representatives are required to eliminate their own opinions from the advice they offer customers."

ing"[37]—commercial and savings banks have moved rapidly into the securities markets, leading to predictions that they will "dominate the discount brokerage business by the end of the decade."[38]

The more banks become brokers, the more the SEC has called for jurisdiction over them, specifically requesting that they adhere to the proxy-distribution procedures required of other brokers.[39] Representatives of the commercial banking industry oppose SEC jurisdiction.[40] On the other hand, the Commission's position is supported by issuing corporations, as reflected in this survey. "Force *banks* to disclose beneficial holders identity," said one IR respondent, representing the attitude of many. And another recommended development of "computer programs for maintaining the information received from the broker, bank or nominee."

13-F: Institutional Disclosure

Just as the IR respondents favor SEC jurisdiction over banks that enter the securities trading business, so they would like to see the SEC strengthen its jurisdiction in the area of institutional disclosure. At present, institutional investors that control accounts totaling over $100 million in equity securities

[37]"Securities: Mutual Fund Chief Urges SEC to Simplify Fund Disclosure Process." *Daily Report for Executives,* May 18, 1983, page A-1.

[38]"Banking: Bank Domination in Discount Brokerage Business Predicted by 1990." *Daily Report for Executives,* April 1, 1983, page A-22.

[39]Bruce Ingersoll, "SEC Seeks to Extend Rules on Handling of Proxy Materials to Banks and Thrifts." *Wall Street Journal,* April 13, 1984; Richard L. Hudson, "SEC Considers Regulating Banks, Thrifts That are Entering Stock Broker Business." *Wall Street Journal,* October 20, 1983.

[40]"Securities: ABA Opposes SEC Proposal to Make Banks Register as Brokers." *Daily Report for Executives,* January 12, 1984, page A-2.

Banks and Proxy Materials

Commercial and savings banks maintain that there is no need for them to be regulated by the SEC's proxy-dissemination rules, in part because they already distribute the required material to their clients, the beneficial shareholders. This position is seconded by the SEC's Advisory Committee on Shareholder Communications. "No federal or state regulation prescribes the procedures for bank nominees to follow," the Committee wrote. "Nevertheless, many banks adhere to procedures similar to those followed by brokerage firms." But not all banks. The committee continued: "Some banks have assumed, rightly or wrongly, that beneficial owners as a group are insufficiently interested in the affairs of the corporations in which they invest to warrant forwarding the proxy material to them. While this institutional attitude may be changing, it still persists to some degree, particularly among smaller banks."

—Improving Communications Between Issuers and Beneficial Owners of Nominee Held Securities. U.S. Securities and Exchange Commission, June, 1982, pp. 15, 18.

have to disclose specified data about the nature of those accounts to the SEC. The SEC, in turn, makes the information public. Required quarterly reports stipulate the name of the corporate issuer of the securities in each account, the classes and identification (or CUSIP) number of those securities, the market value of each class, the total number or principal amount of each class, and the name of the manager within the institution who exercises investment discretion or voting authority. The provision calling for this type of disclosure, known as Rule 13-F, was adopted in July, 1978, a full decade after Congress authorized the SEC to study what effect the growing number of institutional investors were having on the securities markets.

Two matters of concern to corporations over the 13-F filings are: (1) the fact that institutions holding under $100 million in securities need not file the reports; and (2) the alleged ease with which even those institutions filing 13-F reports are granted "confidentiality" status under the Freedom of Information Act. Such status results in withholding the information from public scrutiny.

Banks and Shareholder Communication

While brokers and investment bankers may not welcome the entry of commercial and savings banks into the securities-trading business, investor-relations personnel have mixed views. Such entry has not affected, either positively or negatively, the ability of 44 percent of the corporations in this study to communicate with their beneficial shareholders. Another 38 percent said they were not sure to what extent, if any, communication was affected. The remaining respondents said communication has been made more difficult.

Exhibit 3: How Banks Inform Shareholders on Proxy Matters

As of this writing, banks are not required to follow the proxy-dissemination procedures adhered to by brokers and dealers. Nevertheless, many banks do follow those procedures, and have taken steps to strengthen the proxy process. The following is a page from a pamphlet distributed by banks to their customers on the nature of proxy voting. The pamphlet was prepared by Manufacturers-Hanover Trust Division, American Bankers Association Trust Division, American Society of Corporate Secretaries, Inc., Corporate Transfer Agents Association, Inc., The Securities Industry Association, The Securities Transfer Association of New York, Inc., and The Stock Transfer Association, Inc.

* * * *

What Every Shareholder Should Know

Proxy voting is one of your important rights as a corporate shareholder and a vital part of communication between you and the company in which you hold shares. Today, an increasing number of securities owned by individuals are officially registered in the name of a bank or broker and held by them, as nominee, on behalf of the shareholder. This practice, as we will further explain, is efficient when you wish to buy or sell securities through your bank or broker. But it does add a "middle man" to the communication process when your company seeks your vote, by proxy, through the mail.

In this booklet we've asked some typical questions about the whats and whys of stock registration and the proxy voting process, and provided answers every shareholder should know about proxy rights.

If we've missed any questions which interest you, please contact your account officer.

Concerning the first matter, half the IR respondents would like to see the SEC require securities disclosure by *all* institutional investors, regardless of the size of their portfolios. (A third did not take a position, and the remainder said "no" to the question.)

Concerning the second issue, confidentiality, many IR practitioners allege that "confidentiality" status is too readily granted. In fact, according to one respondent who made his views known at a recent investor-relations conference, all an institution need do is assert that release of the information would cause "substantial harm" to its competitive position vis-a-vis other institutions. The SEC, he maintained, would not undertake the required investigation to ascertain the validity of the claim unless it received an explicit third-party request to do so.

To test how widespread was the feeling over alleged "lax regulation" in this area, IR respondents were asked whether, in their opinion the SEC adequately enforces Rule 13-F.[41] One in three of the 402 IR respondents shared the "lax regulation" view. This may reflect the current trend within the SEC toward less required disclosure in general—regardless of who has to do the disclosing.

[41]For news stories on the issue of "lax regulation" at the SEC, see: Richard L. Hudson, "SEC's Enforcer Runs Tight Ship, but Critics Charge He's Too Soft." *Wall Street Journal,* June 28, 1983; Kenneth R. Noble, "Record of SEC Chief Draws Mix of Opinions." *The New York Times,* November 7, 1983; Monica Langley, "As Stocks Climb, Short-Staffed SEC Tries to Cope With Flood of Securities Offerings." *Wall Street Journal,* July 25, 1983; Monica Langley, "Court Rulings Against SEC Freeze Agency's West Coast Investigations." *Wall Street Journal,* September 22, 1983.

Summary

One effect of the enormous technological innovations of the recent past has been to transform information itself from a flow of data and ideas into an economic sector in its own right. Disclosure of, and access to, this information, therefore, has emerged as a central activity within the corporate and financial worlds. The personnel responsible for

Analysts on the SEC

Security analysts were asked what changes in SEC procedures and policies they would welcome. The following is a summary of their responses.

(1) Require additional corporate disclosure of segmental and subsidiary operations.

(2) Require additional disclosure on public and private debt and preferred stock issues.

(3) Increase focus on insider trading. Require more timely insider-trading reports.

(4) Require all information in 10K reports to be incorporated into annual shareholder reports.

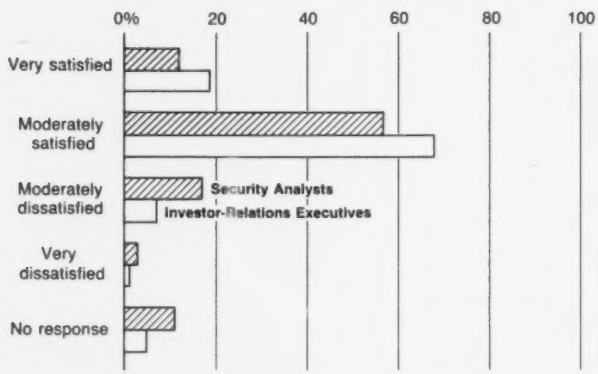
(5) Require greater detail in the "Management Discussion and Analysis" (MDA) sections of annual reports. Additional emphasis in the MDA section should be placed on explanations of events—the reasons for specific corporate developments.

(6) Improve surveillance of the options markets, paying special attention to transactions just prior to the expiration dates of major options.

(7) Make use of security analysts as consultants to screen financial documents like 10K's and annuals for obvious shortcomings.

Chart 3: Views on the SEC

In general, investor-relations executives are more satisfied with the way the SEC enforces its disclosure laws than are security analysts.



this function—investor-relations executives in corporations, security analysts, and registered representatives in financial firms—now have at their disposal the equipment, primarily computers and word processors, and the services necessary to exploit and further develop this activity to a vast degree.

At least within the financial community, initial fears have been laid to rest that the new equipment available to the public would render the brokers and analysts expendable. Those fears are replaced with a growing conviction among investment advisers that their positions are more valuable than ever, as are the positions of their corporate counterparts, the investor-relations executives.

At the same time that technology is improving access to, and use of, information, current deregulatory policies tend to restrict the data flow: Often less disclosure is required precisely as more and more information is demanded. Responses to deregulatory trends usually mirror the particular interest of the various participants: corporations, for example, generally applaud fewer governmental requirements to disclose data to the financial world. But they take a dim view of any relaxation of rules that grant them access to certain financial data—in particular information concerning the identities of their own shareholders.

Deregulation is not limited to disclosure. Current federal policies allow banks and brokers, for the past 50 years two separate and distinct types of financial organization, to enter each other's realms. Deregulatory policies also allow for an ever-increasing proliferation of types of securities (such as index options), introducing further complications into the financial world, and making access to information even more crucial.

In sum, both the deregulatory trends and the new technological developments are rendering the jobs of investor-relations executives, security analysts, and registered representatives, at once more complex and easier. More complex because of the greater amount of information and sharper skills needed to comprehend and translate the bewildering, rapidly changing realities; and easier, because the resources to undertake that very function are more sophisticated than was imaginable only a few years ago.

ANNOUNCING The Conference Board

Chart Service

What is the Chart Service?

The Conference Board's corporate organization chart collection helps top management identify and track fast-breaking organizational trends. The service includes the organization charts of almost 500 leading corporations, encompassing every major U.S. industry.

Because we continuously update and expand our chart inventory, you are kept abreast of organizational developments which affect corporate growth.

Each chart is dated and is completely current as of that date.

In many cases you can also receive additional detailed charts of subsidiaries, divisions, plants, staff functions and operating groups.

Features of the Chart Service:

- Up-to-date
- Constantly expanding
- Tailored to your specific needs
- Inclusive (detailed sub-charts available)

You Need the Chart Service To:

- Give you immediate access to critical information on a cross section of U.S. industry
- Find out how specific companies are organized—and how this can be applied to your own corporate structure
- Gain practical data on the titles actually used for corporate and divisional executives
- Discover how to best structure key functions —and where staff units report at the corporate level

For more information:

Linette Stein Waters
Supervisor
Fee-Paid Information Services
The Conference Board, Inc.
845 Third Avenue
New York, NY 10022
(212) 759-0900

The Conference Board

Chart Service Order Form

Name/Title

Company

Street

City/State/Zip

Signature/Date

☐ I would like to purchase the entire collection of approximately 500 corporate charts for $950.

☐ I am only interested in selected organization charts. Please send me more information.

☐ My check for $_____ is enclosed.

☐ Please bill me later.

Return to:
Linette Stein Waters
The Conference Board, Inc.
845 Third Avenue
New York, N.Y. 10022
(212) 759-0900

Research Bulletin

Managing Capital Investments

by Patrick J. Davey

The Conference Board

number 165

Introduction

It is not an easy job to invest funds here and now in the expectation of realizing adequate returns on them in subsequent years. But it is one that financial and other corporate executives have long performed in administering their firms' capital-expenditure programs.

To assist management in coping with the critical responsibility of reviewing and approving capital outlays, The Conference Board has conducted a succession of studies over the last thirty years.[1] This, the fourth in the sequence, examines the current corporate response to a task made increasingly difficult in recent years by the emergence of volatile interest and high inflation rates. The report updates earlier findings on practices, especially those having to do with appraising proposals and fixing dollar limits of expenditure authority. It also gives special consideration to the vital underpinnings of capital-investment decision making: costs of capital and hurdle rates.

The responses of 125 corporate officials to a questionnaire provided much of the information for this study. Table 1 on page 3 groups responding companies according to type and size of capital budget. Other input came from interviews and discussions with knowledgeable financial executives.

[1]Now out of print, predecessor Conference Board studies include: John H. Watson, III, *Controlling Capital Expenditures*, Studies in Business Policy, No. 62, 1953; Norman E. Pflomm, *Managing Capital Expenditures*, Studies in Business Policy, No. 107, 1963; and Patrick J. Davey, *Capital Investments: Appraisals and Limits*, Report No. 641, 1974.

© 1984 The Conference Board, Inc.

THE CONFERENCE BOARD, INC.
845 Third Avenue, New York, N.Y. 10022
THE CONFERENCE BOARD OF CANADA
25 McArthur Road, Ottawa, Ontario, K1L-6R3, Canada
THE CONFERENCE BOARD, INC.
Avenue Louise, 207 Bte 5, B-1050 Brussels, Belgium

Table 1: Surveyed Companies by Size of Annual Capital-Expenditure Budget

Capital-Expenditure Budget Range (millions of dollars)	Manufacturing Companies	Nonmanufacturing Companies	Total Companies
4 - 99	32	7	39
100 - 499	48	16	64
500 and higher	15	7	22
	95	30	125

Assembling Capital Budgets

Financial theory recommends that corporations accept investment proposals whose projected costs are less than their anticipated returns up to the point that available funds are exhausted. And, by and large, this is the path that most companies follow in planning capital expenditures.

Among those queried, the bottom-up approach to capital budgeting predominates. In all save a few participating companies, investment proposals originate within operating units and, subject to the winnowing process, wend their way up the ladder to ultimate approval or disapproval at the corporate level.

In the exceptional cases, a partial or complete top-down approach is taken to capital budgeting. Under such a system, corporate management imparts greater direction—often in the form of constraints on budget size or content—at the outset of the budgeting cycle.

Here are some representative descriptions of the budget-assembly process provided by respondents:

"For the majority of capital budget items the following procedure is used. First, the operating divisions submit ranked lists of desired capital projects. These proposed projects are evaluated by corporate staff officers who select those projects that are consistent with corporate priorities, the strategic plan, financial constraints, and the divisions' own priorities. Recommendations are given to the Vice President and Senior Vice President-Operations for review and revision. Approved proposals are returned to the divisions for preparation of formal authorizations for expenditure (AFE's) which include detailed costs and justifications. These are then submitted to the corporate Cost and Economic Analysis staff for review and calculation of return on investment. The AFE's then go to the Senior Vice President-Operations for approval. The final step is incorporation into the overall capital budget for submittal to the board of directors for final approval."

Senior Vice President-Finance & Accounting
Transportation Company

"The budget is assembled using a top-down bottom-up process. The corporation provides each operating division with net income, cash flow, and capital spending guidelines to use in developing its budget. A set of macro-economic business-activity-level assumptions is provided as well. Each of the divisions then prepares its own budget and submits it to corporate headquarters. At headquarters, the budgets are consolidated and reviewed with the company's management group. The management group then either recommends the consolidated budget to the board of directors for approval, or requests that additional refinements be done at the corporate or divisional level."

Manager-Business Analysis
Petroleum Company

Influence of Strategic Planning

Strategic planning, or the setting of long-range objectives for performance and business positioning, is an established practice among most participating companies. It also plays a role in many of them in resource allocation. However, the relationship between the planning and allocating processes differs among responding companies. In a large number it is close, with strict attention paid to long-range goals in the selection of projects. In others, however, the affinity is less pronounced, often because financing considerations or industry conditions sharply limit investment options.

Where accomplished, strategic planning usually serves as the foundation for operating budgets as well as capital budgets. The duration of the strategic plan—perhaps three, five or ten years—often coincides with the term of the capital budget. In such cases, segments of the plan may be implemented annually with changes or additions to it made if required. The following comment by the senior vice president-finance of a machinery company explains how strategic planning influences the size and makeup of the organization's capital budget:

"While planning is a continual process, officially the planning cycle begins with the submissions by the divisions of the long-range (five-year) strategic plans to corporate on May 1. During May, each division president makes an oral presentation of the long-range strategic plan to the entire planning committee. Part of this presentation is devoted to a discussion of the total capital needs and specific major capital expenditures (over $250 thousand) that are required to support the long-range objectives. At the end of May, the planning committee meets to discuss the major long-term issues that were raised by the long-range strategic planning process and provides guidelines to divisions, including the range of capital spending which is to be incorporated in to next year's annual capital-expenditure budget.

"Then, on July 1, the divisions submit detailed capital expenditure budgets to corporate. Concurrently, each division president sends a brief letter to the corporate president explaining any significant changes in the annual capital-expenditure budget from the proposed capital spending for the coming year in the long-range strategic plan. The detailed capital expenditure budgets are carefully reviewed and screened by the corporate president and group vice president. The detailed capital budgets are either approved as submitted or revised as appropriate. The divisions are notified and requested to incorporate these capital budgets for planning purposes into the annual operating plan due at headquarters on October 1. Finally, on December 1, the divisions' annual operating plans, including the capital-expenditure budgets, are presented to the board of directors for approval. Final budget approval means the corporation has accepted, in principle, the proposed capital expenditure budget but it does not mean authority to commit funds without appropriation approval."

Just how effective is long-range planning in the shaping of capital expenditures? Respondents to an earlier study expressed the opinion that its impact could be increased if corporate practices focused more on the funding of strategies than on the funding of individual projects.[2] And recently an academician with consulting and research experience in capital budgeting suggested a novel way of bolstering the role of strategic planning in capital budgeting. (See accompanying box.)

Cost of Capital and Hurdle Rates

For many companies, cost of capital and hurdle rates are at the heart of the capital-investment process. To maximize shareholder values, profit-oriented corporations strive to obtain investment returns in excess of capital costs. Despite these efforts, the reverse sometimes occurs. When it does, shareholders' values are impaired and management tenures may be threatened. To ward off such undesirable developments companies often set minimum hurdle or cutoff rates for capital expenditure proposals that equal or exceed the costs of capital.

Considering Strategic Opportunities

In his article, "Today's Options for Tomorrow's Growth," appearing in the March-April 1984 issue of the *Harvard Business Review*, W. Carl Kester cites the difficulties often encountered in securing approval for capital-investment proposals because of differing attitudes among project reviewers. Strategists, on the one hand, tend to look at what undertakings might accomplish, while financial analysts, on the other, are inclined to focus on costs and projected returns.

To reconcile these sometimes divergent positions, Professor Kester suggests that decision makers add a new tool to their analytical arsenals by thinking of strategic investment opportunities as options on the future expansion of their companies. Pointing out that growth options, like call options on securities, have value, he provides a rationale for the posture and provides a guideline for its applications.

Use of the growth-option approach to investment analysis can prompt unconventional decisions. For example, proposals that might ordinarily be rejected on straight financial grounds may be deemed acceptable because of their strategic value.

Cost of Capital

Corporate capital is generally said to consist of a company's long-term debt and net worth. Other items appearing on the right hand side of the balance sheet are usually excluded from consideration either because they are "free" (trade credit) or transitory (commercial paper).

Costs of capital—usually stated in percentages representing rates paid for permanent capital—vary considerably, even among companies in the same industry. For one thing, the mix of funding instruments is seldom identical. For another, the market's assessment of securities covers a fairly wide range and price disparities produce differences in costs.

A 1981 study of five industry groups found that the one with the greatest amount of leverage—debt in its capital structure—had the lowest cost of capital.[3] But this determination did not serve as a beacon for others, nor did it come as a surprise. It related to the utility industry where, at least until recently, investors tended to be more tolerant

[2]Rochelle O'Connor, *Resource Allocation and Strategic Planning*, The Conference Board, Information Bulletin No. 99, 1981.

[3]Patrick J. Davey, *Corporate Capital Structures and Financing Plans: 1981-1984*, The Conference Board, Information Bulletin No. 97, 1981.

of high debt ratios because of the greater certainty of cash flows.

While a close comparison of capital costs on an industry basis between 1981 and the present is not possible because of sampling differences, an overall review of interim developments is. Then, the capital costs of 167 surveyed companies ranged from about 4 percent to more than 25 percent. The median cost of capital reported in 1981 was 13.5 percent; the most frequently mentioned figure was 15 percent.

In the fourth quarter of 1983, the cost of capital in 104 companies reporting that figure extended from 8 percent to 20 percent. (Percentages outside this range reported by five companies—5, 12.5, 30, 30, 36—were excluded for consistency because they were classed as either real, inflation-adjusted, or pre-tax.) The median and the mode are the same as three years earlier—13.5 percent and 15 percent, respectively.

Not all companies view the cost of capital as the cornerstone of capital expenditure policy. A handful of respondents, for example, maintain that this calculation either presents formidable obstacles or is too uncertain to produce a reliable standard on which to base hurdle rates.

Determination of Capital Costs

The bulk of participants develop an after-tax, weighted average of capital components to calculate costs. Thus, for example, they compute the effective cost of long-term debt, preferred stock, and equity and, with attention to the proportion of each in the capitalization, combine them to determine an overall cost of capital. But even among these companies, differences in making calculations, assigning rates, and weighting capital elements produce results that are not completely uniform.

Some companies base cost-of-capital estimates on current or marginal rates; others rely on an average of past experience. Similarly, weighting of components can be accomplished on the basis of either existing or planned capital structures and by using either the book or market value of securities.[4]

Debt and Preferred Shares

The cost of the debt and preferred stock segments of capital structures are readily calculated. To determine the cost of debt, the borrowing rate is multiplied by the corporate income-tax rate and the product is subtracted from the interest rate. For example, if lenders charge 15 percent, and the corporate tax rate is 46 percent, the effective cost of borrowing is 8.1 percent. To determine the cost of preferred stock, the established dividend is divided by the issue price of the security. Thus, a preferred issue sold for $25 per share and paying a $4 annual dividend would have an after-tax cost of 16 percent because dividends are not tax deductible expenses.

Equity

The capital asset pricing model (CAPM) is the most popular approach to costing equity among survey participants. Those adopting it consider three elements in calculating the cost of equity: the risk-free rate of return, the excess over this rate or risk premium offered by stocks in general, and the beta, or relative risk, attached to their own stock.[5]

For illustrative purposes, assume that U.S. Treasury bonds yielding 13 percent reflect the risk-free rate of return, that stocks in general are expected to return 17 percent, and that .8 is the beta of the stock whose cost is to be determined. The cost of equity for this company is computed by adding the risk free rate of return to the product of the risk premium multiplied by the beta. So determined ($13\% + [17\% - 13\% \times .8]$), it is 16.2 percent.

Some respondents rely on present and prospective dividend yields to calculate the equity portion of capital cost. A company using this approach might, for instance, divide the current annual dividend paid on its common stock by the market price of its shares, and add to this quotient an anticipated dividend-growth rate to arrive at an estimated cost of equity. Thus, a firm whose common shares sell for $60 and pay a $3 yearly dividend that is expected to grow by 9 percent annually would compute a 14-percent cost of equity.

Several simply rely on price/earnings ratios to determine the cost of equity. When this is the case, reciprocals of price/earnings ratios are held to represent equity costs. Thus 20 percent might be judged to be the cost of equity for a company whose shares sell for $50 and whose earnings per share amount to $10.

Weighted Average Cost of Capital

After determining the cost of the various components, many companies combine them in a way that reflects the relative importance of each to compute an overall cost of capital. Exhibits 1 and 2 show how two companies calculate a weighted average cost of capital.

A steel company (Exhibit 1) applies the CAPM to determine the cost of equity and the marginal corporate tax rate to determine the after-tax cost of debt. The company then combines these costs on the basis of four parts equity to

[4]For a discussion of company practices, see Arthur V. Corr, *The Capital Expenditure Decision*, New York; National Association of Accountants, 1983.

[5]For a review of CAPM in estimating the cost of equity capital, see James C. Van Horne, *Fundamentals of Financial Management*, (4th Edition). Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980, pp. 358-359.

Exhibit 1: Cost of Capital Computation: A Manufacturing Company

COST OF CAPITAL

Risk-Free Interest Rate	=	11.0%
Market Risk Premium	=	3.0%
Company Risk Index (Beta)	=	1.42
Target Debt-to-Capital Ratio	=	20.0%
Cost of Debt	=	10.0%
Marginal Corporate Tax Rate	=	48.7%

Cost of Equity

Cost of Equity = Risk-Free Rate + (Beta x Market Risk Premium)

= 11.0% + (1.42 x 3.0%)

= 15.3%

Cost of Debt (After-Tax)

Cost of Debt (After-Tax) = Cost of Debt (Before Tax) x (1 - Corporate Tax Rate)

= 10.0% (1 - 48.7%)

= 5.1%

Weighted Average Cost of Capital

WACC = (Cost of Equity x % Equity) + (Cost of Debt x % Debt)

= (15.3% x 80%) + (5.1% x 20%)

= 13.2%

one part debt because its targeted capital structure calls for a mix of 80 percent equity and 20 percent debt.

At Philip Morris Incorporated (Exhibit 2), equity cost is determined by adding the dividend yield to the product of the earnings retention rate multiplied by the return on equity. The equity cost so determined is then combined with the after-tax cost of debt in a way that takes into account the proportion of each in the company's capital structure to arrive at an overall cost of capital.

Other Methods

A few participants equate borrowing costs with capital costs. They determine the cost of capital either by testing the water, that is, by determining a rate by way of an actual bond offering through an underwriter. Or they observe the rates attached to the debt issues of competitors or others that carry ratings identical or comparable to their own. Only one respondent equates equity cost with the cost of capital; it has no debt in its capital structure.

Hurdle Rates

Hurdle rates, or cutoff rates as they are sometimes called, usually spell out the minimum return an investment proposal should offer in order to be considered. They are reported by 83 (approximately two-thirds) of the companies surveyed. Eighteen of the remaining forty-two respondents fix such rates but do not provide details; the balance do not use them.

Among those specifying cutoff rates, the range is from 9.4 percent to 40 percent. Twenty users employ more than a single rate and for twenty-five the rate equals or exceeds 20 percent for some or all projects. The most common single rate reported—by thirteen companies—is 15 percent.

Companies' hurdle rates sometimes, but not always, coincide with their cost of capital, as Table 2 shows. In many firms, cutoff rates are fixed above the cost of capital or vary from the same cost to a higher one. These rates occasionally range from less to more than the cost of capital. Only rarely do hurdle rates fall below the cost of capital and then usually only temporarily or because of special circumstances.

Companies that set hurdle rates above those determined for capital costs do so for a variety of reasons. Chief among them are the desire to compensate for the uncertainty of returns due to the impreciseness of forecasts and the need to allow for noneconomic projects (e.g., pollution control facilities). An infrequently cited reason for this posture is the availability of many more attractive projects than can be funded..

"The reason that this rate is higher than our weighted average cost of capital is twofold," says the director, budgets and financial analysis, of an office equipment manufacturing company. "First, not all capital investments provide a return (OSHA, etc.), and, second, this rate is risk adjusted." A specific example of the use of risk-adjusted hurdle rates comes from the director, capital budget administration, of a participating hardware manufacturer, whose cost of capital is 16 percent: "For years we have used a hurdle rate of 20 percent after-tax for cost-reduction projects and higher rates of 25 to 30 percent for new product projects."

Similarly, companies that vary hurdle rates from corresponding with to higher than their costs of capital usually do so to adjust for risks. Projects on which returns may be forecast with great certainty (such as those for replacement purposes) may need only to promise a return matching the cost of capital to qualify for consideration. But others, perhaps involving outlays for unfamiliar businesses where returns are less sure, may be required to offer a premium yield to be considered candidates for inclusion in the capital budget.

Where hurdle rates coincide with costs of capital, they are not always rigidly applied to individual projects. Rather, the returns from all capital investment outlays are expected

Exhibit 2: Cost of Capital Computation: Philip Morris Incorporated

Equity Cost:

Dividend Yield:

Dividend Rate Per Share @ 12/31/83	$ 2.90	= 4.0%
Market Price Per Share @ 12/31/83	$71.75	

Retention Rate:

Dividends Declared	$365.8	= 40.5%
Net Earnings	$903.5	

100.0%-40.5% = 59.5%

Return on Equity:

Net Earnings	$ 903.5	= 23.5%
Average Stockholders Equity	$3,848.3	

Equity Cost:

Dividend Yield + (Retention Rate × Return on Equity)
4.0% + (59.5% × 23.5%) = 18.0%

Cost of Debt:

After Tax Cost of Debt = 4.7%

Weighted Average Cost of Capital:

Equity	$4,033.7 =	56.7% ×	18.0% =	10.2%
Debt	$3,074.9 =	43.3% ×	4.7% =	2.1%
	$7,108.6 =	100.0%		12.3%

to exceed the minimum criterion established by the hurdle rate—often by a considerable margin.

Several companies employ hurdle rates that cover a wide range, extending from lower than to higher than the cost of capital. Two reasons are advanced by those who follow this course: variations in the cost of capital of underlying units and variations in the returns offered by desirable projects.

Some companies also compute a cost of capital for their strategic business units (SBU's), in addition to determining an overall cost figure. Because these fall both below and above the corporate cost of capital, so do the hurdle rates. In like manner, other companies include projects in their capital budgets for strategic reasons that offer returns that are lower than the cost of capital. By fixing hurdle rates for other projects higher than the cost of capital they strive to obtain total returns that equal or surpass the corporate cost of capital.

Criteria or Guidelines?

While many concerns adhere strictly to the investment

Table 2: Hurdle Rates Vis-a-Vis Costs of Capital in 80 Participating Companies

Relation of Hurdle Rates to Cost of Capital	Number of Mentions
Hurdle rates:	
Higher	38
Identical	30
Identical to higher	6
Lower to higher	4
Lower or lower to same	2

barriers erected against projects whose promised returns do not satisfy hurdle rates, there are some that do not. In these unusual cases, cutoff rates, while considered, do not dictate a "go-no go" judgment on capital-expenditure proposals. They are but one of a number of considerations that have an impact on decisions and, sometimes, are outweighed by other influences. The manager, construction and property accounting, in a participating manufacturer where this is the situation comments:

"We have a minimum hurdle rate but, practically, it has little meaning. Projects that sustain operations are evaluated judgmentally on the criticalness of the facilities involved, the alternatives, and the strategic outlook for the facility, market or product involved. Projects that add profits are evaluated on the calculated rate of return, factored judgmentally for risk. Higher returns are expected from facilities, markets or products deemed to be static or sustaining than for those expected to grow and modernize. Capital constraints have dictated that only projects with returns substantially above the hurdle rate be considered."

Reasons for Not Using Hurdle Rates

Twenty-four (almost one-fifth) of the participating companies do not fix cutoff rates for capital investments. But this does not signify a lack of interest in returns offered by proposals. Rather it indicates a belief that decision criteria (subsequently discussed) other than hurdle rates are more appropriate to existing circumstances.

Some diversified companies, especially those that do not compute the cost of capital for strategic business units, refrain from setting a corporate hurdle rate because they hold that doing so would work to the benefit of some underlying components and to the detriment of others. For example, the imposition of a universal rate closely tied to the corporate cost of capital might make it extremely difficult for low-risk, low-return units to propose suitable projects. Further, such firms fear that the establishment of a

Table 3: Techniques of Financial Analyses Used by Participating Companies

Technique	Number of Mentions (Multiple responses)
Discounted Cash Flow	
Internal Rate of Return	75
Net Present Value	37
Discounted Cash Flow (unspecified)	22
Payback	32
Accounting Return	20
Other	32

common rate could prompt an unwanted repositioning of the entire business portfolio.

Appraisal Techniques

Before making the major investment outlays projected in capital budgets, most companies subject spending proposals to detailed analyses. These reviews seek to confirm that the projects are consistent with the firms' long-term goals and provide an efficient means of accomplishing them.

Financial analysis is a key element in reaching decisions on proposed capital expenditures. For the most part it focuses on an examination of economic data, especially investment outlays and cash inflows over the expected productive lives of the projects. Regardless of the evaluation approach employed, these factors are ordinarily examined (Table 3).

Of course, other considerations besides those of a strategic or financial nature often enter into commitment decisions. Intangible pluses and minuses sometimes derive from the implementation of projects—effects on employee well-being and morale or on perceptions of the company in the community or marketplace, for example—and these largely unquantifiable influences often have a bearing on capital outlays.

Just as in the 1974 Conference Board study, most of those queried continue to use a combination of financial analysis techniques to evaluate potential capital investments. Although the techniques employed are largely unchanged, far more reliance is currently placed on discounted cash flow methods than was formerly the case. And payback, while still sometimes calculated, is virtually always used in combination with some other evaluation approach. In 1974, it was used as the sole criterion in assessing capital expenditures by one out of seven participating companies. Speakers at a recent Conference Board meeting urged that evaluations of investment proposals break new ground by extending consideration to important factors that are not typically weighed in these conventional analyses. (See above box.)

Broadening Analytical Reviews

At a conference on "Meeting the New Industrial Competition," in the spring of 1983, several speakers recommended that capital-expenditure analysis go beyond traditional examinations of marginal benefits if the needs of the "factory of the future" are to be met.[1] Appraisal approaches that will encourage the introduction of new processes are favored. Reviews, they say, should consider not only the savings but also the synergistic advantages—the possibility of producing new as well as existing products of better quality, for example—offered by new investments.

In addition, proponents of broadened capital-investment evaluations believe that decision makers should weigh the answers to questions now seldom asked during the capital budget-approval process. Among them: Will market share suffer if the investment is not made? Can the evolving needs of the marketplace be met with existing equipment? Will future operating results be impaired if the capital expenditure proposal is rejected?

[1]James K. Brown (ed.), *Manufacturing: New Concepts and New Technology to Meet New Competition*, Conference Board Report No. 844, 1984.

Because it is beyond the scope of this report to explore in depth the comparative advantages of the various financial-appraisal techniques, only brief descriptions of the principal methods are presented here. (For those who wish further discussion of the pros and cons of each method, a bibliography is included in the box on p. 9.)

Internal Rate of Return

The internal rate of return (IRR) is the appraisal technique most frequently cited by respondents to this study. Also known as the discounted cash-flow rate of return and the yield, or investor's method, it is used singly and in combination with other appraisal criteria to determine the acceptability of investment projects. It is also an approach often favored by participating firms that do not establish cutoff rates for capital expenditures.

IRR is the discount rate that equates the present values of the cash outflows and inflows associated with a capital investment. When determined, the internal rate of return may be compared with an established hurdle rate for decision guidance. Or it may simply be considered as the maximum financing rate at which a project might be profitably undertaken.

Net Present Value

Net present value is another discounted cash flow method of financial analysis favored by respondents to appraise capital investment outlays. Ordinarily applied by companies that set hurdle rates for investment outlays, the method

Additional Publications

Appraisal techniques, as well as other aspects of capital-expenditure management, are examined in many standard financial textbooks and in a number of research monographs. Examples include:

Harold Bierman, Jr., and Seymour Smidt, *The Capital Budgeting Decision*, N.Y.: Macmillan Publishing Co. Inc., 5th Edition, 1980.

Arthur V. Corr, *The Capital Expenditure Decision*, N.Y.: National Association of Accountants, 1983.

Wilbur G. Lewellen, *The Cost of Capital*, Dubuque, Iowa: Kendall-Hunt Publishing Co., 1978.

James C. Van Horne, *Fundamentals of Financial Management*. Englewood Cliffs, N.J.: Prentice-Hall Inc., 4th Edition, 1980.

J. Fred Weston and Eugene F. Brigham, *Managerial Finance*. Hinsdale, Illinois: The Dryden Press, 7th Edition, 1981.

Some articles pertaining to the capital-investment process that have appeared recently in the business press are:

Jonathan B. Welch and Timm L. Kainen, "Risk-Adjusted Multiple Hurdle Rates: Better Capital Budgeting," *Financial Executive*, May, 1983.

Robert H. Hayes and David A. Garvin, "Managing as if Tomorrow Mattered," *Harvard Business Review*, May-June, 1982.

Allen H. Seed, III, "Structuring Capital Spending Hurdle Rates," *Financial Executive*, February, 1982.

Surendra S. Singhvi and Robert J. Lambrik, "Investment Versus Financing Decision," *Management Accounting*, March, 1984.

C. Thorben Thomsen, "Dangers in Discounting," *Management Accounting*, January, 1984.

determines a dollar amount that represents the difference between the present value of the cash outflows and inflows related to a given capital expenditure proposal. The discount rate employed is the established hurdle rate—or any other rate the company believes appropriate. When the present value of receipts exceeds that of outlays, the net present value of a proposal is positive—an indication that the investment satisfies the return criterion.

Both the internal rate of return and net present-value analytical techniques are based on discounted cash-flow examinations. However, they differ in an important respect: The IRR determines the return offered by a project whereas net present value reveals only whether the return offered by a project meets minimum requirements. For example, an internal rate-of-return analysis might reveal a return of 20 percent for a project under study. A net present-value appraisal for the same project, using a 15-percent hurdle rate for discounting purposes, would indicate only that the project had a positive net present value and, therefore, promised a return in excess of the cutoff rate.

Table 4: Payback Criteria in 32 Participating Companies

Payback Period in Years	Number of Mentions
1-2	1
1.5	1
2	3
2.5	1
3-4	1
3.5	1
4	1
Under 5	2
3-5	5
4-5	1
5	7
5-8	1
5-10	1
10	2
Other	4*

*Includes two of one-half depreciable lives of assets.

Payback

The payback technique is still used to a certain extent in the analysis of capital-expenditure proposals, although it is declining somewhat in popularity. Among companies providing their experiences for this survey, thirty-two set payback periods (Table 4); thirty-one do not. Forty-two do not impose them as investment criteria but do calculate them; and the remaining twenty do not comment on their usage.

Payback measures the time required to recoup the outlays for an investment from the cash flows it generates. The declining use of the method may trace to a more widespread recognition of its deficiencies, namely: failure to recognize the time value of cash flows and total disregard for revenue streams beyond the point where they provide for recovery of investments. Nevertheless, payback (sometimes calculated on a discounted basis) is considered by some to be helpful as a measure of risk. Such firms believe the shorter the payback period, the more limited the risk, and vice versa.

Accounting Rate of Return

Some companies that calculate return on investment use accounting, rather than economic, data. A popular

Exhibit 3: Mathematical Techniques Employed in Project Evaluation: A Manufacturing Company

Following examples illustrate the principal financial measures applied to a hypothetical project with a six-year life. Cost of capital is 15%.

Internal Rate of Return (IRR)

Although IRR is typically derived with computer assistance, the following illustrates the underlying mathematics of a 28% IRR calculation.

Time Period	(1) Unrecovered Investment-Beginning of Period	(2) Net Cash Flow	(3) 28% Return on Beginning Unrecovered Investment	(4) Investment Recovered (2 - 3)	(5) Unrecovered Investment End of Period (1 - 4)
1	$ 5,000	$(3,000)	$1,400	$(4,400)	$ 9,400
2	9,400	(2,000)	2,632	(4,632)	14,032
3	14,032	4,000	3,929	71	13,961
4	13,961	6,000	3,909	2,091	11,870
5	11,870	8,500	3,324	5,176	6,694
6	6,694	9,000	1,874	7,126	(432)*

Not zero because the IRR is actually 28.4

Profitability Index (PI)

Time Period	Net Cash Flows	Cash Flows Discounted At 15%	
		Cash Outflows	Cash Inflows
0	$(5,000)	$(5,000)	$ -
1	(3,000)	(2,609)	-
2	(2,000)	(1,890)	378
3	4,000	(225)	2,855
4	6,000	(200)	2,630
5	8,500	(150)	4,376
6	9,000	(100)	3,991
		$10,174	$15,230

$$PI = \frac{\$15,230}{\$10,174} = 1.5$$

approach is to divide the average annual income on an investment by the original investment outlay to determine the annual rate of return on the investment. Another rate of return, the average return on average investment, is derived by subtracting the original investment outlay from the total income on the investment and dividing that remainder by half the amount of the investment outlay multiplied by the number of years of useful life of the project. And there are numerous other variations.

Return-on-investment calculations such as these are readily understood and easily applied. Even though such approaches do not discriminate among the timings of derived benefits, they do afford a general indication of an investment's potential return.[6]

[6]See, for example, Francis J. Walsh, Jr., *Managing Business Performance*, The Conference Board, Research Bulletin No. 153, 1984.

Companies occasionally set different criteria depending upon whether projects are evaluated on the basis of cash flow or accounting data. A participating food manufacturer, for instance, fixes a 15-percent guideline for IRR appraisals and a 45-percent yardstick for a calculation that determines a return on funds employed (ROFE).

Other Analytical Approaches

Participants employ additional methods to appraise capital investment proposals. The profitability index or benefit-cost ratio, projections of operating results, MAPI (Machinery and Allied Products Institute) method, judgment, unspecified forecasting techniques, modeling, and determinations of minimum revenue requirements, are each mentioned several times. Often these techniques are used

Discounted Payback

Time Period	Net Cash Flows	Present Value at 15%	Cumulative Present Value	Elapsed Time (Yrs.)
0	$(5,000)	$(5,000)	$(5,000)	–
1	(3,000)	(2,609)	(7,609)	1
2	(2,000)	(1,512)	(9,121)	1
3	4,000	2,630	(6,491)	1
4	6,000	3,430	(3,061)	1
5	8,500	4,226	1,165	.7*
			Discounted Payback =	4.7 Yrs.

*3,061 ÷ 4,226 = .72

Net Present Value (NPV)

Time Period	Net Cash Flows	Discounted at 15% Present Value Factor	Discounted at 15% Discounted Cash Flows
0	$(5,000)	1.0000	$(5,000)
1	(3,000)	.8696	(2,609)
2	(2,000)	.7561	(1,512)
3	4,000	.6575	2,630
4	6,000	.5718	3,430
5	8,500	.4972	4,226
6	9,000	.4323	3,891
		NPV =	$ 5,056

as supplements to others, especially those based on discounted cash-flow analysis.

The profitability index, for example, computed by dividing the present value of cash inflows by the present value of cash outflows associated with a project, provides an indication of the margin of safety afforded by an investment. Its calculation as well as those of several of the more frequently employed techniques of financial analysis—internal rate of return, payback, and net present value—are illustrated or indicated in Exhibit 3.

Analytical Approaches in the Absence of Hurdle Rates

Responding companies that do not set cutoff rates for capital-investment proposals employ many of the same approaches to analysis as those that do. Most nonusers of cutoff rates rely principally on IRR and payback analyses. They also find qualitative analyses, including reviews of strategic requirements, useful. Some examine the impact on earnings and cash flows of investment proposals. And utilities consider the likely effects of investments on shareholders and ratepayers.

Why Techniques are Chosen

Companies that rely on the internal-rate-of-return approach to evaluation generally value its usefulness in ranking projects according to their promised profitability. Adherents of the net present-value approach are usually attracted to the technique not only because (like IRR) it recognizes the time value of money, but also because it permits a quick test of a proposal's ability to meet a hurdle

rate criterion. Payback's boosters not infrequently favor the approach despite its admitted shortcomings because it furnishes helpful insights into the risk and liquidity characteristics of a project. A few also find that it permits the imposition of constraints that contribute to the attainment of long-term corporate goals. Return-on-investment advocates often cite the method's ready calculation and ease of understanding, especially by interested nonfinancial executives, as reasons for its use.

Similarly, supporters of other approaches mention valued attributes as reasons for their selection. A participating manufacturer, for example, finds the benefit-cost ratio appropriate in making comparisons between mutually exclusive proposals that have differing outlay and receipt streams.

Here are some representative comments explaining the reasons for respondents' choices of financial analysis techniques:

"The internal rate of return and the net present-value methods are used to incorporate the time value of money into the analysis. These methods are also used to compare and/or rank alternative proposals."

Manager of Domestic Finance,
Retailing Company

* * *

"Payback analysis is applied to cost-savings projects in order to avoid investing in businesses that have questionable long-term strategic value to the corporation—although the expenditure in question may have an acceptable IRR or net present value."

Vice President and Controller
Forest Products Company

* * *

Analytical Refinements

Information derived from the analytical techniques just described is a key factor in the investment-selection process for 53 respondents. But the other 72 companies insist on some additional fine-tuning before making decisions on capital expenditures. The latter have no quarrel with the results produced by the standard calculations. However, they believe that the data that go into them leave something to be desired, especially if the effects of inflation and uncertainties of projected cash flows are to be considered.

Inflation Adjustments

To take into account the decrease in purchasing power caused by inflation, some companies adjust the value of projected cash flows used in the determination of returns from capital investments. These adaptations are often accomplished by making cash-flow forecasts in current (or nominal) dollars rather than in historical dollars.[1] The vice president and controller of a food company that follows this practice both domestically and abroad notes:

"Financial returns for new capital investments at our company are developed from projections of the incremental costs and benefits associated with the project stated in current dollars (i.e., reflected anticipated inflation over the planning horizon) terms. The standard analytical time frame for new investments is 10 years unless the investment is known to have a shorter useful life.

"Returns on international subsidiary projects are projected in current local currency terms and then translated into U.S. dollars (under FAS-52 or FAS-8, depending upon location) at exchange rates forecast for the investment time horizon by our corporate treasurer's department. U.S.-dollar financial returns are the primary measure of return for the company's foreign subsidiaries, although local-currency returns may be provided for supplemental perspective on investment proposals."

Concerns that forecast cash flows in nominal dollars to compensate for the influence of inflation often also express the discount rate used in net present value and other evaluations in current terms. They believe such consistency makes for more reliable appraisals of capital-investment proposals and insist on its application. A paragraph in the procedure manual of a participating manufacturer, for instance, contains this instruction:

"Cash flows should be estimated in nominal terms (including inflation). Additionally, the required rate of return for project acceptance should also be expressed in nominal terms. Thus, cash flows should be discounted at an interest rate which includes an inflation factor. Also, various components of the total cash flow should be estimated separately. For example, for a given project, product prices may be forecast to increase at a rate lower than the inflation rate. Similarly, tax benefits on depreciation do not increase with inflation as only the original cost of assets is depreciated."

Several approaches are possible to make allowance for the impact of inflation. For example, an expected average inflation rate over the term of the project may be factored into the analysis. Or expected inflation rates may be included on a year-by-year basis—or on any other basis deemed appropriate. The accompanying box contains a description of how one participating company takes inflation into account in its unusual approach to the appraisal of capital investment proposals.

[1] For a general discussion of attempts to remove the distortive effects of inflation from corporate financial reports, see Francis J. Walsh, Jr., *Recognizing Inflation in Accounting*, The Conference Board, Report No. 783, 1980.

Factoring Inflation into Evaluations

A large, integrated energy company recently abandoned its traditional practice of using a fixed discount rate to evaluate investment proposals. The spur was the period of high inflation that occurred during the late 1970's and early 1980's.

The firm came to believe that the former approach was not only inconsistent in its treatment of inflation, but also that it was penalizing the returns forecast for certain projects. Expecting a long-term decline in the rate of inflation, the company projected the various elements of investment cash flow accordingly. But by applying a fixed discount rate (which incorporated an implied constant rate of inflation), it was actually employing two different inflation assumptions in its capital-expenditure analyses. Further, use of a fixed discount rate incorporating the then high inflation rate produced a lower project present value than was actually warranted with inflation on the wane—a consequence that, in this company's view, created an unjustified bias against longer-term projects that are fundamental to its business.

To rectify this situation the firm developed a discount rate methodology that explicitly recognizes the two components of an investor's required return: a real rate of return for the use of capital and an additional return to compensate for the impact of inflation. The former component represents the real weighted average cost of capital; the latter (tied to the GNP deflator because of its applicability to broadly based business activity), the expectation for inflation.

While reviewing its position on discounting, the company also made a reassessment of project ranking methods. Finding inadequacies in some standard ranking techniques, especially an inclination to favor shorter-term projects, the firm sought a new approach. It wanted a measure not affected by project size, one that "allows for the correct recognition of the time value of money in the discounting process, and that is not biased against long-lived projects or projects with longer-term payouts."

As a result of its efforts the company developed a measure labeled investment efficiency (IE) that determines the amount of project value generated per dollar of investment. IE equals the net present value of the project divided by the present value of the investment with the present value of the investment defined as the largest negative cumulative present value of a project's cash flows. A project offering returns equal to the cost of capital would have an investment efficiency of zero using this method of appraisal. The company is convinced that use of the measure permits it to rank projects according to their ability to generate economic value and permits the setting of meaningful hurdle criteria.

The following tabulation illustrates the application of the variable discount rate and investment efficiency methodologies implemented by the company. Components of the annual discount rate—the real rate of return and the inflation assumption—used in the example are hypothetical and do not reflect actual usage.

Year	Discount Rate =	[Real Return	+	Inflation Component]	Cash Flow (Current $)	PW_{var}* (by year)	PW_{var}* Cumulative
1984	20	(10	+	10)	-30	-24.6	-24.6
1985	21	(10	+	11)	-15	-10.0	-34.6
1986	21	(10	+	11)	20	10.8	-23.8
1987	20	(10	+	10)	-30	-13.2	-37.0 PW_{var}*(Investment)
1988	19	(10	+	9)	40	14.6	-22.4
1989	18	(10	+	8)	60	18.3	- 4.1
1990	17	(10	+	7)	80	20.5	16.4
1991	16	(10	+	6)	-20	- 4.4	12.0
1992	17	(10	+	7)	100	18.5	30.5
1993	15	(10	+	5)	120	19.1	49.6 Net PW_{var}*(Project)

$$\text{Investment Efficiency} = \frac{\text{Net } PW_{var}\text{*(Project)}}{PW_{var}\text{* (Investment)}} = 1.34$$

*PW_{var} = Present worth, using the variable discount rate.

Risk Analyses

Skeptics among respondents refuse to accept outcomes predicted by capital-expenditure evaluations at face value. They maintain that since these appraisals incorporate data based on predictions of future events, the results are, at best, uncertain.

They engage in various forms of risk analysis to deal with this problem; that is, to improve the utility of predicted outcomes for capital investments. Instead of pinpointing project returns these examinations are usually designed to assess the impact on results of variations in key input variables such as cost of goods sold, to define ranges within which results will fall, or even to produce probability distributions outlining the likelihood of achieving any of the possible returns.

Forty-four of the companies surveyed rely on sensitivity analysis (a form of risk analysis) to alert them to the relative significance of key decision elements, at least for appraisals of larger capital investment outlays. In efforts to weigh the importance of critical input factors (sales, price, and the like), these concerns first isolate and then test their importance to predicted project results. They do this not by using only the deterministic or single-point most likely value for the input factor but by measuring the variable's impact on overall returns at several points within its range. For example, isolation and testing of a selling price variable might reveal that considerable downward pressure is exerted on the forecast return at the lower end of its range. This possibility might prompt management to abandon the project unless strong evidence could be produced to show that the actual price would be close to or higher than, its deterministic value.

Sensitivity analysis is often facilitated by the use of computers. One respondent even reports development of software that "can determine the degree of change in any variable required to bring the financial return on the 'base case' to the minimum acceptable level, that is, the hurdle rate."

Some concerns believe that graphs provide an excellent means of illustrating the potential impact of key input variables on project returns. Exhibit 4 contains such a presentation. It shows, for example, that a 30-percent decline in selling price would lower the project's IRR from about 27 percent to about 10 percent—a possibility certain to demand critical review. On the other hand, it indicates that a 30 percent increase in investment outlays would only reduce the project's IRR by approximately 2 percentage points to 25 percent—an eventuality that might cause little stir.

Sixteen of the companies in the sample, many of which employ sensitivity analysis, attempt to go even farther by defining the probabilities of achieving specific returns on investment outlays. These concerns establish risk profiles for major capital-expenditure projects by using either decision trees or computer programs involving gaming techniques.[1]

Exhibit 4: Sample Sensitivity Graph: A Manufacturing Company

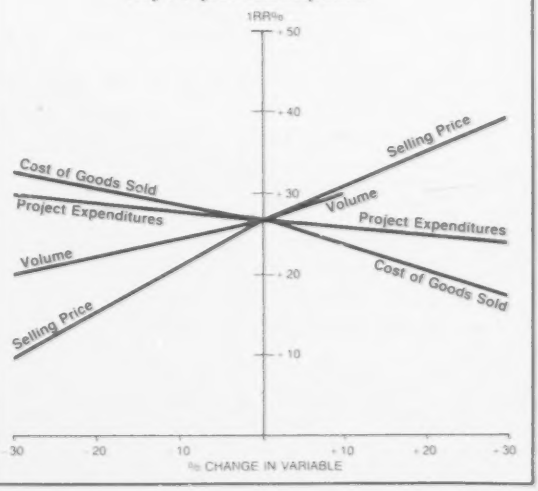
PROJECT NO. 2110—X PLANT
MANUFACTURING FACILITIES FOR PRODUCT A
CATEGORY: CAPACITY INCREASE—ESTABLISHED PRODUCT

KEY ASSUMPTIONS—PRODUCT A
(Average Annual Change in %)

	1980-1982(A)	1983-1990(B)	1991-2004(C)
GNP Deflator			
Sales Volume			
Selling Price			
Raw Material A Price			
Direct Labor Rate			
Steam and Electricity Prices			

(A) 3-Year History Prior to Authorization
(B) Authorization to End of Discounted Payback Year
(C) Remaining Project Life

IRR Sensitivity to Changes in Key Project Assumptions



By assigning likelihoods to particular results, such analyses provide much more than information on the range of possible returns. However, they are not without detractors. The controller of a participating manufacturer warns: "Generally speaking, investment proposals deal with rough assumptions of results; to apply sophisticated quantitative analysis adds an air of accuracy that may not be warranted or appropriate."

[1]See, for example, J. Fred Weston and Eugene F. Brigham, *Managerial Finance*, (7th ed.). Hinsdale, Illinois: The Dryden Press, 1981, pp. 516-523.

A variety of other techniques is used by participants to assess risk. As mentioned earlier, some concerns fix two or more hurdle rates, assigning them to projects in accordance with established procedures. For example, most of the 20 companies employing multiple hurdle rates use the lower rate as the cutoff for replacement projects and a higher rate for projects involving outlays for new products, or for other investments where returns are considered less certain.

"A combination of pessimistic, most likely and optimistic analyses is used to refine predicted results," comments the vice president and treasurer of a drug company. In like manner, several other companies prepare projections based on different scenarios to sharpen perspectives and to permit avoidance of undertakings that could result in serious reverses. And a few others rely on payback analysis or judgment to provide insights into risk.

Discounting and Disinvestment

Does reliance on appraisal techniques that are based on discounted cash flows (e.g., net present value and IRR) prompt companies to disinvest—that is, to reject capital expenditures that are important to their survival? Opinion is divided among respondents on this question (Table 5).

Concerns that believe the use of quantitative discounting methods promote disinvestment often point to the tendency of these approaches to favor projects offering near-term returns as reasons for their views. Some also question whether the cash flows and cutoff rates employed in these analyses are appropriate. The following comments by executives of this persuasion are representative:

"Total reliance on discounting techniques would certainly tend somewhat to discourage investment, particularly for businesses in which many opportunities are characterized by long gestation periods. We tend to use discounting techniques to discriminate between alternative approaches to accomplish an objective to a greater extent than we do to select the objective itself. As a consequence, discounting has a more significant effect on the form than on the magnitude of our investment."

Chief Financial Officer,
Aircraft and Armaments Company

* * *

"The reason why discounting may promote disinvestment is because one may establish unrealistic hurdle rates based on historical book returns that do not reflect the cumulative effect of inflation. In other words, if one calculates the current-value return on investment, it is much lower—perhaps one half of reported returns using historical cost data. Therefore, hurdle rates based on unrealistic historical cost information may lead one to reject investments that would maintain cost-effective productive capacity, resulting in disinvestment."

Corporate Controller,
Medical Supply Company

Table 5: Participants' Views of Discounting Appraisal Techniques

Cause Disinvestment	Number of Mentions
Yes	11
Not ordinarily	27
Possibly	15
No	45
No opinion	27
	125

Forty-five participating companies have naught but praise for the effectiveness of discounting methods used to appraise capital-investment outlays. If anything, supporters maintain, these techniques ensure proper investment. The comment of the manager, financial planning and analysis of a steel company, is typical:

"By discounting future returns from an investment, one make the future dollars saved or gained comparable to the current dollars being spent. Only by making this adjustment can one see if more money will be returned from an investment than was put into it. If the expected returns are not as great as the project's cost, one would be wasting the company's money by making the investment. By building projects that do not meet the hurdle rate, the company's market value is reduced—a true case of disinvestment."

But some defenders of discounting techniques are a little more reserved in their support. The 27 in this category maintain that discounting techniques will not produce disinvestment provided they are applied in a fitting manner. Proper application, they believe, demands that results projected by conventional discounting applications not serve as the be all and end all of the decision-making process. Other quantitative measures—the impact of not making an investment on price, and market share, for examples—as well as such qualitative considerations as conformity with long-range goals must be weighed and, if need be, given precedence to guard against unwanted business liquidation. Misuse of discounting, of course, these supporters admit, may lead to disinvestment.

The controller of a petroleum company offers this comment:

"Corporate planning does not subscribe to the theory that reliance on discounting appraisal techniques tends to promote disinvestment. To the extent this occurs, it is usually caused by one of two analytical deficiencies—inappropriately defined and presumably high discount rates, or an improperly defined set of base or 'do nothing' conditions. Further, total reliance on quantitative methods is

mitigated by consideration of mentioned qualitative factors and issues."

Another respondent, the manager, budgets and business analysis, of a forest products company, makes this observation: "It is entirely possible that many companies have been ignoring low-risk, low-return internal projects in favor of higher-yielding diversifying acquisitions. While we have set a relatively high (compared to our estimated cost of capital) hurdle rate for internal projects, we do not necessarily adhere to it. Our primary corporate strategy is to protect and to improve the strategic position of our existing businesses."

Fifteen companies have reservations about the universal applicability of discounting techniques to the analysis of capital-expenditure proposals. Some of these, like their counterparts who caution against the exclusive use of net present-value or IRR based analyses, fear that improper conclusions may be reached by companies that put too much emphasis on results forecast by discounting appraisal methods.

Even stronger doubts about the efficacy of these approaches under all circumstances exist in a few participating organizations, especially among natural resource firms. In situations where substantial outlays are required over periods of perhaps several years before returns begin to flow, they wonder if the application of discounting analytical techniques leads to optimal decision-making. As the vice president-finance of a petroleum company puts it: "We are concerned, however, whether or not discounting provides an accurate appraisal of all projects (such as long-life cash-generation projects) and are reevaluating our capital-investment criteria."

Authorizing Investment Outlays

Except in isolated instances, budget approval does not mean project approval. Months, or even years, are needed to bring proposals from conception to implementation. Recognizing that conditions can, and often do, change over time, most responding concerns require final clearances on projects to ensure continued viability before the commitment of funds.

These "last looks" are sometimes taken by a company's board of directors, especially if the project involves substantial outlays. But more frequently, either because the number of smaller projects tends to predominate or because of board decree, responsibility falls to committees or is entrusted, in varying degrees, to individual members of the management team.

Role of Committees

Forty-five participating companies call on committees—some of the board of directors, others of management—to give ultimate approval to investment proposals; four of them use two committees for this purpose. The remainder choose to rely on their boards, management or staff departments to sanction projects.

Oversight of capital expenditures is but one of several duties for board committees. Management committees, however, tend to focus on investment matters, but not always exclusively on review and approval aspects as the following committee charter and excerpt from a corporate policy statement show:

"The Capital Allocation Committee is a subcommittee of the company's Policy and Strategy Committee. As such, CAC shall:

"(1) Establish the objectives and standards for the allocation of capital resources within the company, such resources to include both working and fixed capital;

"(2) Review the productivity and utilization of capital from a risk-return standpoint;

"(3) Recommend levels of capital investment and capital reallocation where appropriate; and

"(4) Oversee the capital budgeting process and post-audits of major investments."

—A medical products company

* * *

"As a committee appointed by the board of directors, the Capital Appropriations Committee is charged with the responsibility to develop and establish financial criteria for assessment of capital projects, to review major capital requests and report thereon to the board, and to administer the approval of authority levels for capital expenditures and disposition of capital assets."

—A food products company

* * *

But elsewhere capital expenditure committees, whatever their names (and as the appendix suggests, there is wide diversity), zero in on project reviews, acceptances or rejections, or both. Because these examinations concentrate on financial, long-range planning, and technical concerns, executives with expertise in these areas are often members of such committees. The following statements provide representative descriptions of the function and composition of review committees:

"A corporate Capital Review Committee reviews all projects over $100,000 on a quarterly basis and makes recommendations of approval, delay or disapproval to the Office of the Chairman. The Capital Review Committee is composed of the vice president and treasurer, vice president of engineering and maintenance, director of corporate financial plan analysis and capital budgeting. The primary emphasis is on review of the strategic financial and engineering aspects of each project."

—Vice President and Treasurer, Pharmaceutical Company

* * *

"Our Executive Management Committee (EMC) reviews all capital expenditure proposals that move to the board of

directors. The EMC is the policy and decision-making management committee. It includes the chairman, the president and CEO, three operating executive vice presidents, the chief financial officer, the chief technical officer, and the chief human-resource officer."

—Senior Vice President and Chief Financial Officer, Chemical Company

* * *

Where empowered to approve projects, these committees usually command a level of authority that ranks them just below that of boards of directors and above that enjoyed by individual corporate executives. Of course, while dollar limits on capital expenditure authority tend to increase with budget size, there are exceptions even among companies in the same industry with comparable capital budgets. For example, the executive committee of one food company can authorize expenditures of up to $2 million; but the capital committee of another food company, with a moderately higher budget, can approve capital outlays of only up to $1 million.

Capital Expenditure Limits

All save seven of the one hundred twenty-five companies providing their experiences for this survey delegate authority to approve investment projects, subject to dollar limits, to selected committees and managers (see appendix). In the exceptional firms, close control at headquarters is usually the rule: Authorization powers are not distributed among hierarchical levels of management but, rather, are reserved for the board of directors or a senior executive or committee.

Factors that affect the dollar limits set by companies include overall corporate and strategic business unit size, organization, degree of diversification, and management philosophy. Frequently, another important consideration is the level of confidence the executive granting the authority has in the individual receiving it.

Since these influences combine in varying ways and with differing emphases from company to company, dollar limits of capital expenditure authority extend over a wide range. Levels considered adequate in one firm might prove inappropriate to a competitor of like size because of structural differences, for example. Accordingly, companies tend to work out schedules of spending authority that enable them to operate effectively, and to review these prescribed limits either at fixed intervals, often yearly, or on an ad hoc basis whenever the situation demands.

How have dollar limits of capital expenditure authority changed in the last decade? Comparisons with limits in effect during 1974 are difficult for several reasons. First, the composition of the survey panels used to explore the question of dollar limits differed to a considerable extent; a large number of the companies included in the 1974 panel no longer exist as independent entities. Second, not all companies that participated in both studies presently delegate authority along the same hierarchical chain of command as in the past. Finally, some companies that took part in both surveys have undergone important structural changes during the past 10 years.

Despite these obstacles in the path of trend observation, a definite upward pattern in limits emerges among a sample of respondents to this and the earlier survey. Expanded requirements—tracing both to growth produced by internal progress and external activities such as acquisitions—and to the impact of a major inflationary outbreak, prompted virtually all of these firms to boost their limits, sometimes sizably, in recent years. For example, a chemical company that set upper spending limits of $4 million and $750 thousand for its executive committee and for individual executive committee members, respectively, in 1974 now gives the former expenditure authority extending from $5 million to $10 million and the latter limits ranging from $2 million to $5 million. Similarly, a drug company upped its limits for its chairman from a range of $250 thousand to $500 thousand to one of $1.5 million to $3 million, and for its president from a range of $125 thousand to $250 thousand to one of $250 thousand to $1.5 million. The firm's board formerly authorized all projects costing more than $500 thousand, but now exercises its prerogative only on projects requiring outlays in excess of $3 million.

For the most part, committees and executives of firms with large capital budgets possess higher limits of capital expenditure authority than their peers in firms with smaller capital budgets. There are exceptions to this general rule, however. And, even among companies from the same industry sharing other common characteristics (such as comparable budget amounts) there are considerable variations in levels of capital-expenditure authority. As a lengthy summarization of dollar-limit practices would provide only limited insight, specifics on the range of the capital budgets and on the dollar limits of authority in queried firms are presented on pages 21-31.

Limits on dollar expenditures are ordinarily assigned formally—in grants of authority, as sections of corporate manuals, or in bylaws of boards of directors. Utilization of written expenditure levels facilitates implementation of projects by largely eliminating the delays (in checking or obtaining clearances, for example) that sometimes arise when authority is transmitted orally. The following excerpt from the corporate controller's manual of a participating company illustrates the precision with which the written word permits the delegation of dollar limits of authority:

"The following authorities are hereby granted pursuant to the Board of Directors' resolution adopted on (date):
"1. All capital projects, including those which affect changes in the annual capital budget, shall be subject to approval as follows:

a. Any amount not exceeding $250,000 may be approved by any corporate vice president as to matters within his area of responsibility; and

Exhibit 5: Approval Levels for Capital Expenditures: A Manufacturing Company

Type	AMOUNT OF CAPITAL Project Expenditure		Approvals Required	Final Approval —Company	Final Approval— Company's Parent
	Corporate Staff & Groups/ Divisions With Sales Over $100 Million	Groups/Divisions with Sales Under $100 Million			
Land	Under $ 400,000	Under $400,000	Group/Division Gen. Manager Corporate Controller Chief Financial Officer Chief Operating Officer	Chief Executive Officer	Not required
	$ 400,000 through $ 749,999	$ 400,000 through $ 749,999	Same as above	Chief Executive Officer	President
	$ 750,000 through $ 999,999	$ 750,000 through $ 999,999	Same as above	Chief Executive Officer	Chairman
	$1,000,000 through $2,999,999	$1,000,000 through $2,999,999	Same as above	Chief Executive Officer	Executive Committee of Board of Directors
	$3,000,000 and over	$3,000,000 and over	Same as above	Chief Executive Officer	Board of Directors
Buildings, Machinery & Equipment	Under $ 250,000	Under $ 75,000	Group/Div. Controller & Other Functional Mgrs. as designated by Group/Division General Manager	Division General Manager or V.P.-Corp. Staff Function(A)	Not required
	$ 250,000 through $ 299,999	$ 75,000 through $ 149,999	Group/Division Gen. Mgr. Corporate Controller Chief Financial Officer	Level immediately above the Group/Division Gen. Manager. For Corporate Staff; Chief Executive Officer	Not required
	$ 300,000 through $ 400,000	$ 150,000 through $ 400,000	Group/Division Gen. Mgr. Corporate Controller Chief Financial Officer Chief Operating Officer	Chief Executive Officer	Not required
	$ 400,000 through $ 749,999	$ 400,000 through $ 749,999	Same as above	Chief Executive Officer	President
	$ 750,000 through $ 999,999	$ 750,000 through $ 999,999	Same as above	Chief Executive Officer	Chairman

b. Any amount exceeding $250,000 requires approval by the chief financial officer and chief executive officer; and if it exceeds $750,000, it must be submitted to the controller's office and circulated to the appropriate staff functions for review and comment prior to approval.

"2. Any sale of fixed assets having a gross book value not exceeding $250,000 may be approved by any corporate vice president as to assets within his area of responsibility, or by the treasurer as to assets acquired by the company in satisfaction of any debt to the company. This authorization also applies to any lease that must be treated as a sale under applicable accounting rules.

"3. Any lease, or option to renew, in which the company is lessee or lessor, that requires total rents or other fixed payments not exceeding $250,000, including rents and other fixed payments required during option periods that can be exercised against the company, may be approved by any corporate vice president whose area of responsibility includes the subject matter of the lease. The lease must be in a form approved by the general counsel or his designate, and if it requires total payments in excess of $25,000, it must be reviewed by the treasury department prior to execution. This authorization does not apply to any lease that must be treated as a purchase or sale under applicable accounting rules.

"4. Any acceptance of non-cash property having a fair market value not exceeding $250,000 may be approved by the chief financial officer.

Type	AMOUNT OF CAPITAL Project Expenditure: Corporate Staff & Groups/ Divisions With Sales Over $100 Million	AMOUNT OF CAPITAL Project Expenditure: Groups/Divisions with Sales Under $100 Million	Approvals Required	Final Approval —Company	Final Approval— Company's Parent
	$1,000,000 through $2,999,999	$1,000,000 through $2,999,999	Same as above	Chief Executive Officer	Executive Committee of Board of Directors
	$3,000,000 through and over	$3,000,000 through and over	Same as above	Chief Executive Officer	Board of Directors
Lease	Approval levels refer to total asset value of lease item.		Same approval levels as for Buildings, Machinery & Equipment		
Joint Ventures	Under $ 400,000	Under $400,000	Group/Division Gen. Manager Corporate Controller Chief Financial Officer Chief Operating Officer	Chief Executive Officer	Not required
	$ 400,000 through $ 749,999	$ 400,000 through $ 749,999	Same as above	Chief Executive Officer	President
	$ 750,000 through $ 999,999	$ 750,000 through $ 999,999	Same as above	Chief Executive Officer	Chairman
	$1,000,000 through $2,999,999	$1,000,000 through $2,999,999	Same as above	Chief Executive Officer Board of Directors	Executive Committee of Board of Directors
	$3,000,000 and over	$3,000,000 and over	Same as above	Chief Executive Officer	Board of Directors

(A) The Vice Presidents of Corporate Staff functions are:
V.P. - Administration & Planning
V.P. - Finance and Human Resources
V.P. - Engineering & Research

"5. Any forgiveness of any amount owed the company not exceeding $250,000 may be approved by the chief financial officer."

—A food products company

Modifications of Dollar Limits

Dollar limits on capital-expenditure authority are not always as straightforward as might be suggested by a casual perusal of the appendix. Twenty-three of the participating companies that delegate authority vary the limits that apply, often depending upon whether projects are included in approved capital budgets. (Limits for nonbudgeted proposals are usually considerably lower.)

Levels of spending authority are also sometimes modified in accordance with the type of transaction or investment. Authority to acquire land, for example, may be restricted to one or more specified officials, regardless of the amount of the outlay. Different limits may also apply depending upon whether working capital is included in expenditures or whether projects promise to meet hurdle rates. And limits extended to equally ranked officials of underlying operations (such as division presidents) occasionally vary in line with the volume each strategic business unit transacts.

Some companies that vary limits to cover two or more circumstances or that require two or more officials to authorize a project find it convenient to include matrices in the documents used to convey information on spending limits (Exhibit 5). But schedules suffice for others, with less complicated guidelines. The following tabulation reflects the distinct dollar limits fixed by a participating diversified

manufacturer to cover projects previously approved during the planning process and projects not previously approved:

Authorizer	Dollar Limit for Projects in Approved Capital Plan	Dollar Limit for Projects not in Approved Capital Plan
Chairman of Board*	$10 million over capital plan amount	up to $10 million
Sector Presidents**	up to $3 million	up to $1.5 million

*The board of directors must approve all capital projects whose costs exceed the approval authority delegated to the chairman of the board.

**Sector presidents cannot exceed their capital spending plan for the year without the prior approval of the chairman of the board.

Reasons for Delegation

Were directors and senior corporate executives required to give final approval to every investment proposal, they would have time for little else. Freeing them from the burden of this responsibility in all but the most important cases is probably the main reason why capital-expenditure authority is delegated.

There are other justifications for the establishment of spending levels, however. The use of dollar limits fixes responsibility for individual projects—an important consideration when post-audits are conducted to determine how well forecast outcomes match up with actual results. Similarly, the delegation of dollar limits serves as a control on capital investments by restraining discretionary outlays. Giving executives of underlying units authority to commit funds to certain investments facilities the implementation of projects in locations removed from headquarters and, by tangibly demonstrating confidence in the ability of branch officials, boosts esprit de corps. By delegating authority to go forward with projects not included in approved capital budgets, the dollar-limit schedules of some companies make room for late-blooming, profit-promising proposals that might otherwise be excluded.

APPENDIX

Levels of Capital Expenditure Authority

This appendix provides specifics on dollar limits of capital expenditure authority currently effective in surveyed organizations. These companies are classified according to both industry or product line and range of capital budget.

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
MANUFACTURING		
Aircraft and Armaments		
A	II	Corporate Vice President—Material, Facilities and Services - over 250 Division and Subsidiary General Managers - up to 250
B	II	Board of Directors - over 2,000 Chairman of Board - over 1,000 President - over 100 Executive Vice President, Finance - up to 100
Aluminum Products		
A*	II	Board of Directors - over 10,000 Office of the Chairman - 3,000 to 10,000 Business Unit Vice President and Chairman of Facilities Planning Committee (jointly) - 1,000 to 3,000 Business Unit Vice President - up to 1,000
Apparel		
A	I	Board of Directors - 200 and higher Corporate President - 50 to 200 Division President - up to 50
B*	I	Board of Directors - over 15,000 Executive Committee - 4,000 to 15,000 COO/CEO - 700 to 4,000 President-Domestic or International - 400 to 700 Division President - up to 400
Beverages		
A	I	Vice President, Finance - over 25 Divisional President and Vice President, Finance - up to 25
B	III	Board of Directors - 5,000 and higher Office of Chief Executive - 2,500 to 5,000 Corporate Executive Vice Presidents - 1,000 to 3,500 Operating Company Presidents or Designees - up to 1,000
Chemicals		
A	I	Executive Committee - up to 250 Individual members of Executive Committee - up to 100 (for repair and maintenance)

[1] Capital Expenditure Budget Categories:
Category I - $4 to $99 million
Category II - $100 to $499 million
Category III - $500 million and higher

*Delegated limits vary depending upon circumstances.

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Chemicals (cont'd)		
B	I	Board of Directors - 500 and higher Corporate President - 25 to 500 Group President - up to 25
C	I	Board of Directors (with Executive Committee) - 500 and higher Executive Committee - 25 to 500 Division Management - up to 25
D	I	Board of Directors - 500 and higher Division Presidents - up to 500
E	II	Board of Directors - 1,000 and higher Chairman - 100 to 1,000 Division Presidents - up to 100
F	II	Board of Directors - over 5,000 Chairman of Board - 1,000 to 5,000 President - 500 to 1,000 Group Vice Presidents - up to 500
G	II	Board of Directors - 5,000 Chairman and CEO - 2,000 to 5,000 Operating Group Presidents - up to 2,000
H	II	Board of Directors - over 10,000 Executive Committee - over 500 to 1,000 Corporate Officers - up to 500 Division Presidents - up to 350
I	II	Board of Directors - over 2,000 Chairman and Chief Executive Officer - 1,000 to 2,000 President and Chief Operating Officer, Chief Administrative Officer, Chairman of Executive Committee - 500 to 1,000 Group Executive - up to 500
J	II	Board of Directors - over 2,500 President/Chairman of Board (with Management Committee authorization) - up to 2,500 Vice Presidents (varies by function) - from 50 to 300 Assistant Vice President - Administration and Public Affairs - up to 125 Director, Business Centers (varies by center) - from 50 to 125 Director, Engineering and construction up to 50 Auxiliary Department Heads - up to 25
K	III	Board of Directors - 5,000 and higher Chairman and President - 3,000 to 5,000 Executive Vice Presidents - up to 3,000 Managing Directors and Senior Staff Officers - up to 1,000
L	III	Finance Committee - unlimited Executive Committee - 5,000 to 10,000 Member of Executive Committee and Chairman or Vice Chairman - 2,000 to 5,000 Executive, Group or Senior Vice President - up to 2,000

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Construction Products		
A	I	Board of Directors - 100 and higher Senior Management Committee - 10 to 100 Division General Manager - up to 10
B	I	President - over 50 Group Vice President - 25 to 50 SBU Manager - 1 to 25 Operating Manager - up to 1
C*	I	Board of Directors - over 500 Appropriation Committee - 200 to 500 General Managers of operating groups - up to 200
D	I	Board of Directors - 500 and higher Chairman & CEO - 150 to 500 President & COO - 50 to 150 Officers reporting to President - up to 50
E	II	Board of Directors - over 10,000 Management Committee - up to 10,000 Chairman, President, Senior Vice Presidents - up to 1,000 Operating Vice Presidents - up to 500
Containers		
A	II	Board of Directors - 3,000 and higher Business Investment Committee - 1,000 and higher (up to 3,000) Sector Executive - up to 1,000 Business General Manager - up to 250
B	II	Board of Directors - over 5,000 Any two members of executive office - 3,000 to 5,000 Any member of executive office - 1,000 to 3,000 Group or Senior Vice President - 250 to 1,000 Division Manager - Corporate Officer - 25 to 250 Subdivision Manager - Corporate Officer - 25 to 100 Divisional or Major Segment Manager - 10 to 25 Plant or Facility Manager - up to 10
Cosmetics		
A	II	Board of Directors - over 5,000 Chief Executive Director - up to 5,000 Senior and group vice presidents - up to 100 Vice Presidents - up to 50 General Managers - up to 10
B	II	Board of Directors - over 1,500 Chairman of Board - up to 1,500 President - up to 750 Executive Vice President - up to 250
Diversified		
A	I	Board of Directors - over 1,000 Chairman of Board - 500 to 1,000 Executive Vice Presidents - 100 to 500 Division Officers - up to 100

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Diversified (cont'd)		
B	I	Board of Directors - over 1,000 Capital Committee - up to 1,000 Vice Presidents, Group Executives - up to 100 Division General Managers/Subsidiary Presidents - up to 25
C*	I	Board of Directors - 5,000 and higher (existing businesses) Board of Directors - 1,000 and higher (new businesses) Chairman - 500 and higher Financial Vice President - 250 and higher
D	II	Business Unit Presidents - up to 100 (outside approved budgets) Vice President, Planning and Vice President, Manufacturing and Technology - all commercial projects Group Vice President, Defense and Aerospace - most military projects
E	II	Board of Directors - over 5,000 Capital Expenditure Committee - 1,000 to 5,000 Group Presidents - up to 1,000
F	II	Board of Directors - over 5,000 Executive Committee - 1,000 to 5,000 CEO - 500 to 1,000 Executive Vice Presidents - up to 500 Division Presidents and Area Vice Presidents (varying limits) - from 100 to 250
G	III	Board of Directors - over 10,000 CEO - up to 10,000 COO - up to 10,000 Executive Vice Presidents - up to 7,500 Division Presidents - up to 5,600
H	III	Board of Directors - over 25,000 Corporate Executive Office - 20,000 to 25,000 Sector Executives - up to 20,000
I*	III	Chairman of Board - 10,000 over capital plan amount Sector Presidents - up to 3,000
J	III	Chairman - up to 5,000 President - up to 2,500 Senior Vice President, Division Head - up to 1,000
K	III	Chairman and CEO - Unlimited President and COO - Unlimited Vice President and Presidents of Operating Units - up to 1,000 General Manager - 100 to 500
L	III	General Manager, Group Executive (Executive Vice President), Appropriations Review Committee, Executive Committee, and Finance Committee - over 10,000 General Manager, Group Executive (Executive Vice President), Appropriations Review Committee, Executive Committee - over 1,000 to 10,000

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Diversified (cont'd)		
		General Manager, Group Executive (Executive Vice President) - over 500 to 1,000 General Manager or designated representative - up to 500
M	III	Board of Directors - over 50,000 Finance Committee - 10,000 to 50,000 Office of the Chief Executive - 5,000 to 10,000 Executive Vice President - 1,000 to 5,000 Vice President - 500 to 1,000 Division General Manager - up to 500
Electronic Products		
A	I	Board of Directors - over 3,000 Chairman - up to 3,000 Sector Heads - up to 1,500 Division Presidents - up to 200
B	I	Board of Directors - 200 and higher Corporate M.E.C. Committee - 100 to 200 Group Vice President - 50 to 100 Product Division General Manager - up to 50
C*	II	Board of Directors - unlimited Chief Executive Officer - over 750 Corporate President - up to 750 Executive Vice President - up to 500 Group Vice President - up to 250 President & General Manager of Divisions - up to 50
D*	II	President - up to 1,000 Certain Vice Presidents - up to 500
Food Products		
A*	I	Executive Committee - up to 200 Vice Chairman - up to 50 President - up to 50
B	I	Board of Directors - 1,000 and higher President - 100 and higher Business Unit Head - up to 100
C	I	Board of Directors - over 1,000 President - 250 to 1,000 Executive Vice President - 150 to 250 Vice President - 25 to 150 Department Heads - up to 25
D	II	Board of Directors - over 250 Vice Chairman and CEO - 100 to 250 President and COO - 100 to 250 Company and/or Division President - up to 100 Corporate Vice Presidents - up to 100
E	II	Board of Directors - unlimited Executive Committee of the Board - 2,000 President (CEO) - 1,000 Senior Vice Presidents - 500 Affiliate Top Management - 50 to 250

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Food Products (cont'd)		
F	II	Board of Directors - 2,000 and higher Chief Executive Officer - 250 to 2,000 Executive Vice President - 50 to 250 Group, Area Vice President - 10 to 50 General Manager, Operation - .5 to 10
G	II	Board of Directors - 2,000 and higher Chief Executive Officer - 1,000 up to 2,000 Committee of Chief Operating Officers - 500 up to 1,000 Chief Operating Officer - 100 up to 500 Division Presidents - up to 100
H	II	Board of Directors - 5,000 and higher Chief Executive Officer - 2,000 to 5,000 Vice Chairman - 1,000 to 2,000 Executive Vice Presidents - up to 1,000 Subsidiary presidents and general managers - varies
I	II	Board of Directors - over 1,000 Capital Appropriations Committee - 251 to 1,000
J	II	Board of Directors - 2,000 and higher Chairman, CEO and CFO - up to 2,000 Corporate Vice Presidents - up to 250
K*	II	Board of Directors - 5,000 and higher President - up to 4,999 Executive Vice Presidents and Group Vice President (Sector Heads) - up to 1,999 Area Presidents, Division General Managers, Operations Directors, Group Executives, Officer Heads of Operating Units - up to 499
Forest Products		
A	I	Board of Directors - major acquisition and new ventures Finance Committee - overall capital budget Corporate Vice Presidents - up to 50 General Managers - up to 20 Corporate staff officers - up to 10
Hardware and Tools		
A	I	Board of Directors - over 150 Chief Executive Officer, Chief Operating Officer, and Chief Financial Officer - 25 to 150 Operating Unit Management - up to 25
B	I	Chairman of the Board - over 500 President and Vice President, Finance—over 125 Group Vice Presidents - up to 125
Machinery, Appliances and Equipment		
A*	I	Varies by type of asset or activity and by volume transacted
B*	I	Vice President of Capital Administration with either Corporate Controller or Corporate Treasurer - over 25 Division Vice President - up to 25

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Machinery, Appliances and Equipment (cont'd)		
C	I	Corporate President - 200 and higher Group Vice President - 20 to 200 Division President - up to 20
Medical Supplies and Devices		
A*	I	Board of Directors - over 250 Capital Allocation Committee and Chief Executive Officer - 100 to 250 Chief Financial Officer - 50 to 100 Group Vice President - 25 to 50 Direct subordinates of Group Vice Presidents - 10 to 25
B	I	Board of Directors - 500 and higher Operations Committee - 100 to 500 Senior Vice President - 50 to 100 Division President - up to 50
C	II	Executive Committee—over 1,000 Company Chairmen or Presidents - as authorized by responsible executive committee members
Office Copying, Computing and Other Equipment		
A	II	Board of Directors - over 500 President, Chief Executive Officer - 100 to 500 Group, Division President - up to 100
B	II	Chief Executive Officer - over 10,000 Executive Vice President - up to 10,000 Senior Vice President, Group Vice President - up to 5,000 Operating Unit Vice President - 200 to 2,000
C*	II	Chairman & CEO - 20,000 President & COO - 20,000 Operating Group President - 7,500 Operating Group Vice President - 1,000 Headquarters Service Function Vice President - 1,000
D*	II	Board of Directors - over 500 CEO - up to 500 Operating Heads - up to 100
E*	III	Executive Committee - over 8,000 Policy Committee - up to 8,000 Profit Center Executive - up to 5,000
Petroleum and Petroleum Products		
A*	II	Board of Directors alone or with Senior Corporate Management - over 2,000 Divisional Presidents - up to 2,000
B	II	Board of Directors - over 4,000 Executive Committee - 2,000 to 4,000 Subsidiary Board of Directors - 1,000 to 2,000 Chief Executive Officer - up to 1,000 Chief Operating Officer - up to 750 Division heads - up to 500 Designees of division heads - up to 250

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Petroleum and Petroleum Products (cont'd)		
C*	III	Board of Directors - Unlimited Chairman or President - up to 50,000 Vice Chairman or Executive Vice Presidents - up to 25,000 Operating Company Presidents - up to 15,000 Corporate Division Heads - up to 5,000
D*	III	Executive Committee - over 4,000 Large subsidiary - up to 4,000 Intermediate-sized subsidiary - up to 2,000 Small subsidiary - up to 500
Pharmaceutical Products		
A*	I	Board of Directors - over 3,000 Top Management Operations Committee - 500 to 3,000 Corporate Executive Vice President - 150 to 500 Division General Manager - 15 to 115
B	II	Board of Directors - 2,000 and higher Capital Project Committee - 500 to 2,000 Group Presidents - up to 500
C	II	Board of Directors - over 5,000 Executive Committee - 300 to 5,000 Component Appropriations Committee - up to 300
D	II	Board of Directors - over 10,000 Executive Committee - 2,000 to 10,000 Chairman - 1,000 to 2,000 President - 500 to 1,000 Group Presidents - 250 to 500 Division Presidents - up to 250
E	II	Board of Directors - 500 and higher Chairman, Vice Chairman or President - 200 to 500 Executive Vice President - .5 to 200 General Manager, Vice President - .5 to 100
F	II	Board of Directors - over 3,000 Chairman of the Board - 1,500 to 3,000 President - 250 to 1,500 Corporate Senior Vice Presidents - up to 250 Division Officers and Managers - varies by division
Rubber and Plastic Products		
A	I	Boards of Directors - 1,000 and higher Chairman, Domestic - 250 to 1,000 Chairman, Foreign - 100 to 1,000 Local (Manager) Domestic - up to 250 Local (Manager) Foreign - up to 100
B	II	Board of Directors - over 5,000 Chief Executive Officer - up to 5,000 President & Chief Operating Officer - up to 3,000 Group Management - up to 1,000 Company Vice President - up to 500
C	II	Board of Directors - over 3,000 Management Committee - 1,500 to 3,000 Executive Office - 750 to 1,500 Group Managers - up to 750

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Steel and Steel Products		
A	I	President and Vice Presidents - over 10 Division Managers - up to 10
B	II	Board of Directors - 5,000 and higher Management Policy Committee and Chief Operating Officer or Vice Chairman - 2,000 to 5,000 Executive Vice President - 1,000 to 2,000 Vice Presidents and General Managers - up to 1,000
C	II	Board of Directors - over 1,000 President - 250 to 1,000 Vice President - up to 250
D	II	Office of Chairman (Chairman, Vice Chairman, and President) - over 50 Group Presidents - up to 50 (subject to annual cumulative total of 1,000)
E	III	Board of Directors - over 15,000 Corporate Management Committee - 2,500 to 15,000 Executive Management - up to 2,500
NONMANUFACTURING		
Mining		
A	II	Chairman and President - up to 5,000 Other Corporate Officers - varies from 10 to 1,500
B	II	Board of Directors - 1,000 and higher Advisory Committee - 1 to 1,000
Retailing		
A	I	Board of Directors - 2,500 and higher
B	I	Chairman of the Board - 250 and higher Chief Executive Officers (Operating Units) - 10 to 50 Chief Executive Officer or designee - up to 10
C	II	Board of Directors - over 5,000 Senior Corporate Management - up to 5,000 Division Principals - up to 100
D	II	Corporate Capital Approval Committee - 100 and higher Presidents, Operating Companies - up to 100
E	III	Board of Directors - 4,000 and higher President, CEO -1,000 to 4,000 Vice Chairman, CAO - 500 to 1,000 Large operating company CEO's - up to 500 Medium-sized operating company CEO's - up to 250 Small operating company CEO's - up to 100
Service		
A	I	Board of Directors - 500 and higher President - 50 to 500 Group Presidents - up to 50
B	I	Board of Directors - over 1,000 Chairman - 500 to 1,000 President - up to 500

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Service (cont'd)		
C	I	Executive Committee - over 1,000 Finance Committee - over 500 to 1,000 Responsible line manager - up to 500
D	I	Board of Directors - over 1,000 Executive Management Committee - 250 to 1,000 Executive Vice President - 100 to 250 Group Vice President - up to 100
E	II	Board of Directors - 500 and higher Capital Committee - 100 to 500 Division President/General Manager - up to 100
F	II	Board of Directors - over 20,000 Executive Committee - up to 20,000 Chief Executive Officer - up to 5,000 Chief Operating Officer - up to 3,000 Chairman, major units - up to 2,000 Presidents, major units - up to 1,000 Presidents, minor units - up to 500
G	III	Finance Committee - over 1,000 President and CEO - up to 1,000 Transportation Group Chief Operating Officer - up to 750 Division Presidents (varies by size and type, but generally) - from 250 to 500
Transportation		
A	I	Board of Directors - 1,000 and higher President - up to 1,000 Senior Vice President and CFO - up to 250 Vice President and Treasurer - up to 100
B	II	Board of Directors - over 450 Chairman - up to 450 President - up to 350 Vice President - up to 60
C*	II	Board of Directors - over 250 President - up to 250 Group Vice Presidents - up to 50 (Concurrence of others usually also required)
D	II	Board of Directors - 250 and higher President - up to 250 (nonbudgeted projects) Senior Vice President - up to 15 (nonbudgeted projects)
E*	II	Board of Directors - over 1,000 Chairman - up to 1,000 President and Chief Executive Officer - up to 500 Senior Vice Presidents - up to 250 Vice Presidents - up to 25 or 50 (according to function)
Utility		
A	II	Executive Level - over 100 Division Managers - up to 100 Department Managers - up to 10 Section Superintendent - up to 5 First line supervisors - up to 1

Industry and Company	Capital Expenditure Budget Category[1]	Levels of Capital Expenditure Authority (thousands of dollars)
Utility (cont'd)		
B*	II	President, Senior Vice President - Finance, Vice President Corporate Facilities, Director Facilities & Property Development, Division Director and Responsible Individual - over 15,000 Senior Vice President Finance, Vice President Corporate Facilities, Director Facilities & Property Development, division director, and Responsible Individual - over 500 Vice President Corporate Facilities, Director Facilities & Property Development, Division Director, and Responsible Individual - up to 10
C	II	Chairman of Board - over 500 Executive Vice President - up to 500 President - over 100 Vice President - up to 100
D	III	Vice President - over 25
E*	III	Board of Directors - over 10,000 President or Chairman - up to 10,000 Executive Vice President, Finance - up to 1,500 Group Presidents - varies from 250 to 1,500 Vice President, Operations services - up to 500

[1] Capital Expenditure Budget Categories:
Category I - $4 to $99 million
Category II - $100 to $499 million
Category III - $500 million and higher

*Delegated limits vary depending upon circumstances.